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ABSTRACT

To be used in conjunction with the "Nutrition Education-Choose Well, Be Well" curriculum series, this curriculum guide is designed to help teachers in primary grades acquire the skills necessary to provide and implement effective nutrition education. The document is based on the goals set forth in the Health Instruction Framework for California Public Schools and on the topics identified in the publication entitled "Minimum Proficiency Levels for Nutrition Education in California Schools." Chapter 1 provides introductory information about the manual's objectives and organization, while chapters 2, 3, and 4 cover the five topics identified in the California nutrition education proficiency guidelines. The topics include the following categories: food choices, factors influencing food choices, food-related careers, consumer competencies, and food handling. For each of these topics, minimum proficiency levels for students in grades 1 through 3 are indicated and specific lessons, teaching strategies, and activities are suggested for achieving these proficiencies. Illustrations, work sheets, games, handouts, and other related materials are included in appendices A-F. (MP)

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Nutrition Education
Choose Well
Be Well

A Curriculum Guide for the Primary Grades

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Wilson Riles, Superintendent of Public Instruction
Sacramento, 1982

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Foreword

National attention is being focused more and more on the importance of nutrition for good health. Studies have shown that nutrition plays a direct role in the overall development of children's mental and physical abilities. Therefore, it is critical that we focus on the important task of improving nutrition and the quality of our children's lives through an ongoing, effective nutrition education program. To accomplish this task, we must help change children's attitudes toward food, modify their eating habits, and improve their ability to use nutrition information.

Through the enactment of state legislation and participation in federal child nutrition programs, California has made a major commitment to nutrition education. With the financial support provided by the Child Nutrition Facilities Act (Senate Bill 120) and the National School Lunch Act and Child Nutrition Amendment (Public Law 95-166), the state has established a comprehensive nutrition education and training program.

One of the objectives of the Nutrition Education and Training Program is to teach children, through a positive daily lunchroom experience and appropriate classroom reinforcement, the value of a nutritionally adequate diet. To be effective, nutrition education efforts must combine the expertise and efforts of teachers, food service professionals, and parents. To build bridges between food service and instructional programs and between home and school is a challenge to those persons who accept the responsibility for nutrition education. I hope that this publication and others in the *Choose Well, Be Well* curriculum series will be helpful to those who accept the challenge to build these most important bridges to good health for our children.

Wilson Riles

Superintendent of Public Instruction

Preface

National attention increasingly is being focused on the importance of nutrition for good health. Studies have shown that nutrition plays a direct role in children's overall mental and physical development. We must focus on the important task of improving the nutrition and the quality of our children's lives through an ongoing, effective nutrition education program. To accomplish this task, we must change children's attitudes toward food, modify their eating habits, and improve their ability to use nutrition information.

Nutrition Education—Choose Well, Be Well, a series of nutrition education curriculum guides, was designed to assist educational agency personnel in the initiation, expansion, and improvement of nutrition education programs. The *Nutrition Education—Choose Well, Be Well* series is not a prescription for learning, but rather a resource from which teachers and food service personnel can acquire ideas to develop relevant curricula for specific learning groups.

Nutrition Education—Choose Well, Be Well is divided by age spans: preschool age and kindergarten, primary grades, upper elementary grades, junior high, and senior high school. Within each age span, lessons are organized by grade level and contain activities that may extend over several days. All activities contribute to students' abilities to reach the expected performance levels identified in the *Minimum Proficiency Levels for Nutrition Education in California Schools.*

The goal of nutrition education and the *Nutrition Education—Choose Well, Be Well* series is to provide opportunities through which individuals develop the knowledge and skills necessary to make wise food choices that will contribute to their overall health and well-being throughout their lives.

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Chapter One

Introduction to the Curriculum

Many Americans do not eat wisely. Influenced by misleading food advertisements and diet fads and rushed by the demands of work and home, these people often make food choices based on convenience and give little or no thought to the nutritional contribution of the foods selected. As nutrition studies have shown, this failure to select food wisely is responsible in part for many Americans having less than optimal health.

What can be done? Nutrition educators are attempting—through efforts such as the *Choose Well, Be Well* curriculum series—to help individuals obtain the knowledge and skills necessary to make food choices that will contribute to their overall health throughout life. The result of this instruction, it is hoped, will be life-long improvement in the well-being of all Americans.

Role of Nutrition Education in the Curriculum

Many goals have been stated for education. Foremost, educational agencies have the demanding responsibility for educating the total individual. Nutritional status affects a person's mental and physical alertness. Therefore, nutrition education is a positive effort to maximize the learning potential of students.

Within the school curriculum, students can learn the importance of a nutritionally adequate diet through a positive daily lunchroom experience as well as through appropriate classroom reinforcement. Through a continuing and sequential educational process, students are able to transform knowledge about their nutritional needs and the nutritive value of foods into decisions affecting their eating behavior and promoting their health and well-being. Students can gain sufficient background for their nutrition decisions from educational experiences related to food choices, factors that influence food choices, appropriate methods of food handling, effective consumer practices, and food-related careers.

A nutrition education curriculum need not compete for teaching time with other curricula deemed important by the school. Nutrition education activities may be integrated into subject matter areas such as science, art, mathematics, social studies, language arts, and physical education.

Relationship of Nutrition Education to Health

A curriculum designed to meet the goals of nutrition education emphasizes health as a significant value in one's personal life. An important value, such as health, does not develop as the result of student exposure to a few "lessons." Rather, the value emerges and changes as students acquire, experience, and evaluate new information. A curriculum that attempts to foster health as a value allows students, throughout their school experience, to build their knowledge, to question, and to make decisions about personal health that will contribute continuously to their overall well-being.

Decision Making in Nutrition Education

The decision-making process is inherent in food selection. Decisions about food that are made daily do have a cumulative effect on an individual's health and well-being. Because the range of decisions individuals make affects their lives, one unique feature of the *Choose Well, Be Well* curriculum series is that lessons have been designed to enable students to make wise nutrition-related decisions. Lessons in the curriculum series provide accurate and current information, facil-

itate an awareness of students' own nutrition-related values, and provide opportunities for them to share their nutrition-related opinions and attitudes with others as part of the decision-making process.

Goals for Nutrition Education

The goals for nutrition education are developed from the *Health Instruction Framework for California Public Schools.* The nutrition instructional program is planned to enable students:

- To develop an understanding that eating patterns are dependent on interrelationships among physical, social, psychological, economic, and cultural factors
- To consider alternatives in meeting nutritional needs and to select various ways to achieve good nutrition within these eating patterns
- To develop eating patterns which contribute to wellness

The nutrition education goals are directed toward the attainment of nutrition subject matter, organized into *five* topics (referred to as concepts in the *Health Instruction Framework*). The identified topics serve as a foundation for nutrition instruction, curriculum development, and evaluation. The topics include the following categories:

- *Food Choices*—Daily food intake is related to the attainment of optimal health.
- *Factors Influencing Food Choices*—Life-styles, peers, and individual family resources reflect similarities and differences in food choices.
- *Food-Related Careers*—Needs, roles, responsibilities, and educational requirements affect an individual's choices in food and health nutrition-related careers.
- *Consumer Competencies*—Effective utilization of existing resources may enhance the potential for satisfying individual and family nutritional needs and wants.
- *Food Handling*—The quality and safety of foods are influenced by the handling, processing, and preparing of foods.

Minimum proficiency levels for students were developed in each of these topic areas to ensure the systematic achievement of the three goals from the *Health Instruction Framework.* The proficiencies providing the basis for the objectives and lessons in this curriculum are found in the publication *Minimum Proficiency Levels for Nutrition Education in California Schools.* (See Appendix B.)

Organization of the Curriculum

This curriculum guide is divided by grade levels, one through three. Within each grade level section are information acquisition lessons, values awareness lessons, and open-ended discussion lessons.

Some lessons contain activities that extend over several days; other lessons contain one specific activity. All activities contribute to students' abilities to reach the expected performance levels identified in the *Minimum Proficiency Levels for Nutrition Education in California Schools.*

How to Use the Curriculum

The recommended grade level for curriculum lessons given in Chart 1 suggests a method for satisfying the minimum proficiencies across all grade levels. Although a sequence for teaching the lessons is suggested, lessons are not restricted to the recommended grade level. It is more important that teachers be able to select lessons which fit in with their own sense of curricular sequencing. Teachers may select among lessons as well as among activities within lessons. Teachers are encouraged to adopt or adapt lessons which blend with their ongoing curriculum and meet the specific needs of their own students.

Teaching Strategies

Many aspects of nutrition education, such as selecting foods, require emphasis on knowledge and attitudes. Cognitive learning about nutrition and food choices is not sufficient for achieving the nutrition goals recommended in this guide. Rather, a balance of cognitive and affective learning allows students to make food decisions based on knowledge and an awareness of their own opinions and values.

Lessons contained in *Nutrition Education—Choose Well, Be Well* contribute to the balance between cognitive and affective learning necessary for students to make wise food choices. The lessons focus on three different teaching strategies: information acquistion, values awareness, and open-ended discussion.[1]

1. Information acquisition lessons

   Key Outcome:
   - Provides the students with basic knowledge and skills

   Process for Implementing the Teaching Strategy:
   - Inform the students of what they are to learn and describe how learning will be evaluated.
   - Make the specific information available to the students.
   - Provide practice for the students in recalling specific information by having them do such

[1]Lesson classification and suggested teaching strategies are provided through the courtesy of Ray Cowan, Gus T. Dalis, Dennis C. Loggins, Ben B. Strasser, and the Office of the Los Angeles County Superintendent of Schools. This material was distributed by the Teaching Strategies Center, Division of Curriculum and Instructional Services, and was copyrighted in 1979.

Chart 1

Recommended Grade Levels for Curriculum Lessons

Curriculum lessons	Recommended grade level*						
	Preschool/ kindergarten	1	2	3	4	5	6
Food Choices Lessons							
Classifying foods	●	●		●			
Need for food	●						
Diet-related health problems		●	●				
Digestion			●		●		
Basic food groupings			●			●	
Personal energy needs				●			
School lunch pattern				●		●	
Six nutrient groups					●	●	
Planning nutritionally adequate meals							●
Factors Influencing Food Choices Lessons							
General environmental influences	●		●				
Aesthetic and sensory influences	●					●	
Cultural influences	●						●
Between-meal snacks		●					
Home and social influences				●	●		
Food-related Careers Lessons							
Role of workers in food and health-related careers	●	●	●	●	●	●	●
Consumer Competencies Lessons							
Advertising	●	●					
Food waste	●		●				
Food labels				●			
Influencing the school lunchroom environment					●		

Chart 1
Recommended Grade Levels for Curriculum Lessons—Continued

Curriculum lessons	Recommended grade level*						
	Preschool/ kindergarten	1	2	3	4	5	6
Influencing the school lunch menu						●	
Unit pricing							●
Food Handling Lessons							
Plant growth and production	●						●
Sanitation	●	●					
Food storage	●		●				
Food preparation	●			●		●	
Food-borne illness					●		

*NOTE: A solid bullet (●) indicates that a lesson addressing a specific proficiency is included in the identified grade level. These recommendations are not intended to be followed rigorously; rather, they are an outline of how a nutrition program might progress from one grade level to another grade level.

things as identifying, distinguishing, listing, and describing. Monitor the students' practice, and provide appropriate feedback.
- Use the evaluation described in each lesson to assess students' ability to recall the information specified.

2. Values Awareness Lessons

Key Outcomes:

- Allows students the opportunity to identify reasons for their choices and to label the reasons as values
- Allows students an opportunity for independent thinking and self-expression in a nonjudgmental atmosphere

Process for Implementing the Teaching Strategy:

- Ask students to focus on a particular issue or topic.
- Ask students to make a choice about the particular issue and give a reason for that choice.
- Assist students in clarifying their responses.[2]
- Inform students that while they are giving reasons for their choices, they are really talking about their values.
- Follow the activity sequence in the order given for the most effective use of this type of lesson.

3. Open-Ended Discussion Lessons

Key Outcome:

- Provides students an opportunity to share ideas and opinions in a nonjudgmental atmosphere

Process for Implementing the Teaching Strategy:

- Inform the students that the purpose of this activity is to give them an opportunity to express how they feel about a particular topic.
- Describe the rules for discussion:
  a. Explain to the students that as teacher or leader you will not give your opinion but that you will help make sure that all of the students will have a chance to talk if they wish.
  b. Explain that if the students do not understand what someone has said, they may ask that person for further clarification.
  c. Remind the students that people will have different ideas. They may disagree with the ideas of other people, but they should not make fun of what others think.
  d. Inform the students that they will take turns speaking in the discussion.

[2]In some instances it will be necessary to follow student comments with further clarifying questions; i.e., "Would it be correct to say that one of your values about breakfast foods is that they are quick and easy to prepare?" Allow students to answer yes or no and thereby to consider whether or not the stated value is important to them.

- Restate the particular discussion question you have chosen for class response and invite the students to share their thoughts and opinions.
- Follow the discussion sequence in the order given for the most effective use of this type of lesson.

Community and Parent Involvement

Community agencies and parents can be immensely helpful in contributing to the educational process. Frequently, they can provide assistance in implementing lesson activities, serve as classroom speakers, or provide print and audiovisual materials.

Food Service Involvement

The support of the food service department within educational agencies is essential to the success of nutrition education. Food service personnel have a keen interest in nutrition education and can be valuable members of the nutrition education team. Nutrition education staff members are encouraged to develop creative methods for integrating the food service program with the nutrition curriculum. The cafeteria should be viewed as a laboratory for the practice of nutrition and a culmination of the decision-making process which has been initiated in the classroom.

Grade One Nutrition Lessons

The nutrition education lessons for students in grade one were designed as a resource for administrators, teachers, school food service employees, and others who wish to offer instruction about food choices, factors influencing food choices, food-related careers, consumer competencies, and food handling. The lessons and activities can be used in their entirety or selectively.

Each lesson activity provides a complete and detailed description of procedures and required instructional materials appropriate to the procedure.

Lesson 1. Classifying Foods from Plants

An information acquisition lesson designed to help students classify foods from plants as fruits, vegetables, or grains

Objective

After completing this lesson, students should be able to classify a plant as a fruit, vegetable, or grain. (This lesson is one of the first in a series leading to the understanding of food and nutrient groups.)

Key Facts

Foods are classified into two groups, plant and animal. Plant foods, such as fruits, vegetables, nuts, legumes, and grains, are grown from the earth's soil.

The botanical definition of a fruit is the pulpy, usually edible mass, surrounding the seed of a plant.

Vegetables, the edible portions of a plant, include leaves, stems, roots, flowers, and seeds. Many vegetables, such as eggplant, tomatoes, cucumbers, and snap beans, are actually the fruits of vegetable plants because they contain the seeds.

Grains, the seeds of the cereal grass family, contain kernels and grow on a stalk. Grains include wheat, rye, oats, rice, corn, millet, and barley.

Nuts and legumes are other plant foods that are consumed. Legumes are mature dry beans and peas, such as lentils, split peas, lima beans, navy beans, pinto beans, and soybeans. Nuts are dry fruits which generally have a single kernel inside a woody shell. Nuts include filberts, cashews, almonds, pecans, Brazil nuts, and walnuts. Peanuts are the pods of the pea family and are therefore classified as a legume.

Activities: Food Classification, Fruit Classification

Procedures	*Materials needed*
1. Ask the students, one at a time, to name a food. List their responses in one of two unheaded columns on the chalkboard. (Put foods from animals in one column and foods from plants in the other.) Tell the students there are two types of foods. Ask them if they know what foods in the first column have in common; ask if they know what foods in the second column have in common. Explain to the students that other classifications are included in the foods from plants group (e.g., vegetables, fruits, grains, and legumes).	
2. Display two each of whole fruits, such as apples, oranges, pears, and peaches. Explain that we eat the fruits of some plants. Show a whole apple to the class; cut the second apple in half. Discuss what the students see (i.e., seeds, pulp, skin). Point out each part as the students identify it. Discuss the apple parts that are usually eaten. Review with the class that fruits contain seeds, pulp, and a skin. Repeat these observations with other fruits. After each fruit has been studied, allow the students to taste it.	Two each of whole fruits, such as apples, oranges, peaches, and pears Knives Cutting board

Activities: Vegetable Classification

Procedures	Materials needed
1. Read aloud to the class the story *Stone Soup*. Discuss reasons to include vegetables in the diet. Draw on the chalkboard a simple picture of a smiling mouth and a pair of eyes to reinforce the discussion of how vegetables help our bodies. **Vegetables** — **Functions** Carrots, broccoli, potatoes, cabbage, greens (such as collards or spinach), peas, cauliflower, zucchini, onion, turnip, corn, celery — Vegetables help keep skin and gums healthy, aid in digestion, and help wounds to heal quickly.	Story: Brown, Marcia. *Stone Soup*. New York: Scribners, 1947.
2. List the vegetables named in the story *Stone Soup*. Allow the students to participate as a group in the preparation and tasting of a soup made from vegetables brought from home. (Bouillon, stock and/or spices may be added for additional flavor. Preparation time may be greatly reduced by the use of precut vegetables provided by the teacher or school food service program.)	Ingredients for stone soup Knives Cutting board Cooking pot Heating element

Activities: Grains Classification

Procedures	Materials needed
1. Display and describe samples of grains placed in small plastic bags (wheat, oats, rye, corn, rice). Display and describe products made from cereal grains: wheat flour, oatmeal, cornmeal, macaroni, and cereal products.	Grain samples Grain products
2. Give each student one or two pictures of grain foods. (The pictures should include a good representation of foods made from grains, such as bread, tortillas, cornbread, crackers, spaghetti, noodles, and pancakes.) Discuss the characteristics of grains. Ask the class members to form a circle while they hold their pictures. While the students study their pictures, ask those holding pictures of foods made from a specific grain to walk into the circle's center. Verify that all pictures held by students in the center are made from that one grain. Repeat this activity with other types of grain foods.	Food pictures from the Dairy Council or from magazines

Activities: Other Plant Classifications

Procedures	Materials needed
1. Tell the class of other plant food classifications: legumes and nuts. • *Legumes* are vegetables and include dried peas, lima beans, kidney beans, pinto beans, lentils, soybeans, and peanuts. • *Nuts* include walnuts, almonds, pistachios, cashews, and macadamia nuts.	
Show samples of legumes and nuts.	Legume and nut samples

Activities: Recall of Plant Classifications

Procedures	*Materials needed*
1. Using a self-gripping fastener (Velcro) board or flannel board and pictures backed with self-gripping fastener or sandpaper, have students catagorize foods into their correct plant classifications. Show food pictures and ask the students to identify the correct classification (i.e., apple = fruit) and place the picture in the appropriate area of the board.	Pictures of foods (Use pictures from the Dairy Council or from magazines.) Peanut butter (legume) Dried beans (legume) Apple (fruit) Orange (fruit) Celery (vegetable) Oatmeal (grain) Beets (vegetable) Peaches (fruit) Cucumber (vegetable) Banana (fruit) Green pepper (vegetable) Macaroni (grain) Salad (vegetable) Potato (vegetable) Rice (grain) Crackers (grain) Almond (nut)
2. Place at least 25 food items or food pictures (approximately five from each plant classification) in a big box. Items, such as rice, beans, and oats, can be placed in small plastic bags and sealed. Set out five shoe-size boxes, each labeled with one of the five plant classifications. Have each student choose at least two pictures or items from the big box and place them in the appropriate small box.	Pictures of plant origin foods (25) (You may use pictures from the Dairy Council or from magazines.) Large box Five shoe-size boxes

Evaluation Suggestion

Provide each student with one or two fruit, vegetable, or grain food pictures. Have the students identify the classification of the food pictured.

Food Service Involvement

1. Consult with the food service manager about the possibility of obtaining cutting equipment.
2. Ask the food service manager to assist with classroom food-tasting activities.
3. Purchase, through the food service program, the fruits and vegetables needed for classroom activities.
4. Pursue the possibility of using state commodity grains from the school lunch program for display purposes.
5. Use published school menus for a listing of foods that students can use to identify fruits, vegetables, and grains.
6. Ask the food service manager to include, in the lunch menus, those fruits, vegetables, and grains discussed in class.

Lesson 2. Preparing Vegetables

An open-ended discussion lesson through which students have an opportunity to share ideas, opinions, and feelings about favorite ways vegetables are prepared for eating

Procedures	*Materials needed*
Discussion Sequence 1. Inform the students that the purpose of this lesson is to give them an opportunity to share their ideas about ways to eat vegetables. 2. Tell the students you will read them a story about Mrs. Fluffy and her twin rabbits. After the story, they will be able to make suggestions to help Mrs. Fluffy solve her problem. 3. Read the story "Mrs. Fluffy's Problem." 4. Present the discussion rules outlined in Chapter One, page 4. 5. State the discussion topic: Tell Mrs. Fluffy about your favorite ways to eat vegetables so that she can fix them for Freddy and Frieda that way. 6. Conduct the discussion.	**Mrs. Fluffy's Problem** Mrs. Fluffy is a mother rabbit that has two little rabbit twins named Freddy and Frieda. Freddy likes to play ball, and Frieda likes roller skating. They try to be good little bunnies and please their mother. They get hungry when they are playing outside. Freddy and Frieda are glad when their mother calls them for mealtime. But when vegetables are on their plates, they are unhappy. Freddy always says, "I hate vegetables, especially carrots." Frieda does not like spinach or green beans. Mrs. Fluffy gets very upset when her bunny twins will not eat vegetables. She wants her bunnies to get all the good things from food so that they will be strong and healthy. Mrs. Fluffy does not know what to do. She buys fresh, crisp vegetables, but Freddy and Frieda will not eat them. You can help Mrs. Fluffy. Tell her your favorite ways of eating vegetables so that she can fix them that way for Freddy and Frieda.
7. Hand out the work sheet of Mrs. Fluffy for students to color.	Work sheet: "Mrs. Fluffy," page F-2

Lesson 3. Classifying Foods from Animals

An information acquisition lesson designed to help students classify foods from animals, such as meat, poultry, milk, eggs, or fish

Objective

After completing this lesson, students should be able to classify a specific food from an animal, such as meat, poultry, milk products, eggs, or fish. (This lesson is one in a series leading to the understanding of the food and nutrient groups.)

Key Facts

Meat, poultry, milk, milk products, eggs, and fish are foods from animals. Foods in each classification include:

Meat	Poultry	Milk	Fish	Eggs
Beef	Chicken	Milk	Tuna	Eggs
Pork	Turkey	Cheese	Halibut	
Lamb	Goose	Yogurt	Shrimp	
Veal	Duck	Buttermilk	Lobster	
Variety meats	Pheasant	Ice cream	Trout	
	Cornish game hen	Cottage cheese	Crab	

Activities: Foods from Animals Classification

Procedures	*Materials needed*
1. Have students name foods of animal origin. Write all suggestions on the chalkboard. Add words listed under Key Facts, if the students do not suggest names. Point to each word and have the class recite it. Repeat the name and have the students consider whether the food is really of animal origin. Cross out the names of foods that are not of animal origin. Optional: Place "Foods from Animals" pictures on a flannel board as students name them.	"Animal Pictures," pages F-3—F-10 "Foods from Animals" pictures, pages F-11—F-17
2. Write on the chalkboard the titles of the five classifications of animal origin foods and put a symbol representing them next to each title. Discuss the identifying characteristics of each classification. Have each student classify the foods in the appropriate group. Review the classifications with the students for accuracy.	
3. Set up the animal classification game as a learning center activity. Reproduce and mount student game boards on tagboard. Laminate the boards. Reproduce, mount, laminate, and cut the animal classification playing cards. (There should be the same number of cards as spaces on the game boards.) Provide a playing board for each player. The animal classification playing cards are stacked face down on the table. Players, in turn, draw a card and place it in the correct category. If a player does not place the picture in the correct category, another player may challenge, and the picture goes on the challenger's board. The first player to complete one category wins.	Master: "Animal Classification Playing Board," page F-18 Master: "Animal Classification Playing Cards," page F-19
4. Obtain some heavy cream, place it in a glass jar, and add a little salt. Have students shake the cream in the jar until it turns to butter. (A bowl and beater may be kept on hand in case the cream is very slow	Heavy cream Glass jar with tight-fitting lid Salt (otional)

in turning to butter.) Allow the students to spread the butter on a half slice of whole wheat bread to eat as a snack. Tell the class that, although butter comes from a milk product, it does not have the food value of milk because it is mostly fat.	Whole wheat bread

Evaluation Suggestion

Have the students complete the work sheet "Foods from Animals" on page F-20. Ask them to draw an *X* over the food in each row that does not belong to the animal food classification shown in the numbered box. Have the students color the food pictures that belong in the food classification.

Food Service Involvement

Ask the food service manager to provide school menus from which students select and classify foods of animal origin. (Most students cannot read the menu and will need the teacher or food service employee to read the menu items.)

Notes

Answer Key:
"Foods from Animals," page F-20
1. eggs, 2. apple, 3. taco, 4. milk, 5. turkey

Lesson 4. Eating a Variety of Foods

An open-ended discussion lesson through which students have an opportunity to share ideas, opinions, and feelings about eating a variety of foods

Procedures	*Materials needed*
Discussion Sequence 1. Inform the students that the purpose of the lesson is to discuss which foods are important to good health. 2. Tell the students you are going to read them a story about Marty, a Martian visitor, and his love for an Earth food. 3. Inform the students that at the end of the story you will give them an opportunity to help Marty with his problem. 4. Read the story "Marty the Martian." Show pictures as appropriate. 5. Present the discussion rules outlined in Chapter One, page 4. nd 5. 6. Present the discussion question: What will you do to get Marty to eat a variety of foods? 7. Conduct the discussion.	Two pictures of Marty the Martian—one healthy, one unhealthy, pages F-21 and F-22 **Marty the Martian** This is Marty the Martian, who has been visiting Earth for a while now. He was probably the happiest Martian ever to ride his space bicycle from outer space for a visit to Earth. This is Marty when he first arrived. (Show picture.) How great he felt! How excited and happy he was. He was ready for fun! It did not take long for Marty to learn to play football, jump rope, and climb trees. He was so good at games that everybody wanted to play with him. Marty did not know anything about Earth food, of course. When he discovered ice cream bars, he knew that he really did like Earth food. They looked like his antennas, which he thought was really neat! Ice cream bars tasted great, too! In fact, Marty decided that they were the only things he would eat. He ate fruit-flavored ice cream bars for breakfast. He cut ice cream bars into halves for lunch. Chocolate-covered ice cream bars at dinner were his favorite. He ate as many as he wanted. When he wanted a snack, Marty would have fudge ice cream bars. You can guess what happened. Poor Marty! This is how he looks now. (Show picture.) He is too tired to play much anymore. He just does not have much energy. You have been studying about food at school, and you know that people need to eat a variety of foods in order to be healthy. What will you do to get Marty to eat a variety of foods?

Lesson 5. Exploring Food Values

A values awareness lesson in which students explore their values about foods

Procedures	Materials needed
Activity Sequence	
1. Prior to the lesson, prepare a bag to use as a model for the students. Attach pictures of foods on one or two sides of the bag.	Magazines containing pictures of foods
2. Inform the students that the purpose of this lesson is to help them become aware of some of their values about foods they particularly like.	Lunch-bag-size paper bags for the teacher and each of the students
3. Inform the students that during this activity, they will be decorating a paper bag showing many of their favorite foods. Show the students the prepared paper bag.	Paste
4. Explain to the students that they are to look through magazines for pictures of foods they particularly like. When they find these pictures, they are to cut them out.	Scissors
5. Distribute the scissors and magazines and have the class begin work.	
6. When the students have four or five pictures cut out, distribute the paper bags and paste. Give pasting instructions, as necessary.	
7. Instruct the students that they are now to begin pasting their food pictures on the bag. Again, show them the paper bag you prepared.	
8. When the students have finished, clean up, collect all materials, and call the class to order.	
9. Ask one of the students to volunteer to come up to the front of the class with his or her paper bag.	
10. Have this student point to one of the food pictures, tell what the food is, and give a reason(s), other than taste, why this food is a favorite one. Using the model bag, demonstrate this procedure. For example, "Applesauce is one of my favorite foods, because it is so soft and smooth as it slides down my throat."	
11. Following the student's comments, respond by inferring one of his or her values about that food. The following examples will help to illustrate how this inferring of values should take place:	
a. If the student says, "Applesauce is one of my favorite foods, because it is so soft and smooth as it slides down my throat," you could say, "Would it be fair to say that *softness* is one of your *values* about some of the foods you eat?" The student would then answer yes or no.	
b. If a student says, "I like corn flakes for breakfast because they are quick and easy for me to fix by myself," you could say, "Would it be correct to say that some of your *values* about breakfast foods are that they should be *quick and easy to prepare?"* The student would answer, yes or no.[1]	
12. Repeat this procedure and invite other students to tell about a food and their reasons for choosing it. Respond by inferring the students' values about the foods discussed.	

[1] *NOTE:* In responding to students in this manner, you are simply labeling the reason(s) they give for liking a food as one of their values about that food. Posing this teacher response as a question provides an opportunity for students to consider whether their reason for liking a certain food is, in fact, one of their values about foods. In addition, you may wish to use the phrase *important to you* along with the word *value*, as illustrated in the example, to help the students recognize that important reasons are often the same as values.

Lesson 6. Identifying Diet-Related Health Concerns

An information acquisition lesson designed to help students identify three diet-related health concerns and the kinds of foods associated with these problems

Objective

After completing this lesson, students should be able to identify dental caries, overweight, and underweight as three diet-related health concerns.

Key Facts

Three diet-related health concerns are dental caries, overweight, and underweight. Dental caries can be prevented with proper dental care, which includes careful, regular brushing, using dental floss, having regular dental checkups, and selecting healthful foods. Foods that help keep teeth healthy include milk and milk products, vegetables, and fruits. However, sweet, sticky foods, such as suckers, gum, candy bars, jam, honey, and some dried fruits, are associated with tooth decay.

Weight problems are influenced by the over- or underconsumption of food. Obesity, one of our country's biggest health problems, means being 20 percent or more above one's ideal body weight. Overeating and/or inactivity cause this excess weight. Obesity contributes to high blood pressure, stroke, and diabetes. Other results of overeating include sluggishness and poor overall health. Underweight, being 10 percent or more below one's ideal body weight, may result in a lack of energy and in a low resistance to illness.

Activities: Dental Caries

Procedures	*Materials needed*
1. Use a flannel board and pictures to tell the story, "A Toothful Story." Ask the following questions: a. What did Charlie say to Mr. Sweets when he first met him? b. Whom did Mr. Sweets send over for Charlie to play with? c. What happened when Charlie Tooth played with Susie Sucker, Patty Pop, and Gregory Gum? d. What did Dr. Brushy and Dr. Pastey do to make Charlie feel better? e. Which new friends did Charlie meet so he could stay a happy tooth? f. What do you need to do to stay happy like Charlie Tooth?	Story: "A Toothful Story," page 19 Flannel board pictures, pages F-23—F-32 Flannel board
2. Borrow a large set of plastic teeth and a toothbrush from the school nurse or local dental association. Discuss with students proper brushing methods. Ask students the following questions: a. Should we keep our teeth clean? b. What happens when we leave food on our teeth? c. How can a dentist help in keeping our teeth clean? Have some students practice brushing the demonstration teeth.	A large set of plastic teeth and a large tooth brush (Check with school nurse or local dental association for the teeth and brush.)
3. Obtain some extracted teeth from a dentist or an oral surgeon. Submerge the teeth in a cola drink for a period of 24—48 hours. Have the students observe the changes in the tooth surfaces. Discuss the effects sugar drinks and sticky foods have on teeth.	Extracted teeth (one for each student, if possible) Cola
4. For review, have students complete the work sheet "Happy Tooth, Sad Tooth," or "Healthy Teeth." Give students the handout "Tips for Healthy Teeth" to take home.	Work sheet: "Happy Tooth, Sad Tooth," page F-33 Work sheet: "Healthy Teeth," page F-34 Handout: "Tips for Healthy Teeth," page F-35

Activities: Overweight/Underweight

Procedures	*Materials needed*
1. Have a student volunteer carry a heavy backpack (five pounds [2.3 kg]), five pounds of fat in a large plastic bag, or another object of the same weight around the room. Explain that carrying the object all day would make a person tired. Ask students the following questions: a. If you were five pounds overweight, how would you like to carry that load all day, every day? b. What kind of strain would it be on your body?	Backpack; five pounds of fat which can be obtained from a local butcher (keep the fat frozen); or other item weighing five pounds (2.3 kg)
2. Discuss with students the results of over- and underconsumption of food by asking the following questions: a. How do you feel when you eat too much? b. What seems to be happening inside your body? (stomach too full, tired, no energy) c. What would happen if you ate too much all the time? (overweight) d. How do you feel when you do not have enough food? (hungry, tired, irritable, stomach cramps) e. What do our bodies seem to be telling us? (We need the right amount of food, not too much or too little.)	
3. (*Note:* This activity may deal with a sensitive issue for some students). Have students make "Tommy Too Much." Stuff a paper bag very full with newspapers. Let students create their own faces, arms, legs, and so forth from scraps of construction paper. Describe again how people feel when they eat too much at a meal. Talk about eating too much *before* a meal (snacks), which often makes people not want to eat healthful foods like vegetables and meat. Have students make up stories about "Tommy Too Much" and what he ate. (Some students may want to use him for a puppet show.)	Large paper bag Old newspapers Paste Scissors Scraps of colored construction paper

Activities: Hidden Sugar

Procedures	*Materials needed*
1. Bring to class some food containers whose labels list sugar as an ingredient; e.g., catsup, soda pop, powdered-presweetened drink, presweetened cereal, granola, salad dressing, and soup. (*Important:* check each food label to be sure sugar is contained in the product.) Place the food samples in front of the class. Have the students identify which foods they think contain sugar. As the students name the foods containing sugar, separate the identified foods from the display.	Sample food containers Two signs reading: "Sugar" and "No Sugar"
Show the students the sample of a label. Explain that labels tell people what is in the food. Look at each food label and read aloud the list of ingredients. If sugar is included in the ingredients, put the food container in the "sugar pile." Continue reading the labels until all products are correctly classified.	Sample label, page 27 in *A Resource Manual for Preschool, Kindergarten, and Elementary Teachers*
Explain to the students that many foods contain sugar, even though those foods do not seem to have any. Explain that some foods need a little sugar for flavor, but many times none is required. Emphasize the importance of knowing what is in food.	

Activities: Hidden Sugar —Continued

Procedures	Materials needed
2. Construct a "Hidden Sugar" poster by listing foods and their serving sizes on the left side of the poster. Next to each food listed, glue the appropriate number of sugar cubes to reflect the amount of sugar in the food. (See page F-36 for a poster example.) Display the poster and explain to the students that they cannot always see sugar in the food they eat. The major health problem from eating too much sugar is tooth decay.	Poster board Felt-tip pen 64 sugar cubes Glue Master: "Hidden Sugar in Foods," page F-36
3. Show the class a series of snack food pictures that are either low or high sugar foods. Ask the students to respond to each picture by holding their thumbs up for a yes response and by holding their thumbs down for a no response. (For example: "Candy is a low sugar food." Students would hold their thumbs down to show the statement was incorrect.)	Food pictures from magazines or the Dairy Council
Optional: Read the statements on the "Low Sugar Foods Quiz." Have students respond as above.	Work sheet: "Low Sugar Foods Quiz," page F-37

Evaluation Suggestion

Have students complete the work sheet "A Healthy You" on page F-38. Ask them to find the pictures showing health concerns and to draw an *X* on the health problem pictured.

Food Service Involvement

Ask the food service manager to visit the class to discuss fruits and vegetables that can replace candy, gum, and candy-covered nuts for snacks.

Notes

Answer Key:

"Happy Tooth, Sad Tooth," page F-33
Happy—carrot, milk, apple, celery, peanuts, orange, chicken sandwich
Sad—doughnut, cola drink, sucker, candy cane, cake, cookies, bubble gum

"Healthy Teeth," page F-34
1. Put an *O* around the following: orange, potato, banana, grapes, cheese.
2. Put an *X* on the following: sucker, candy bar, soda pop, and gum.

"A Healthy You," page F-38
Put an *X* on the following: decayed tooth, smile showing dental caries, very thin person, overweight person

A Toothful Story

Charlie was a happy tooth who always did what his mother told him. (Use Happy Tooth.) One of Mother's rules was never to talk to strangers, but to be happy and friendly with those you know.

One day Charlie Tooth went out to play. While he was playing, who should come along but Mr. Sweets, a stranger to Charlie. Mr. Sweets started talking to Charlie and wanted to become his friend. But Charlie remembered what his mother had told him, so he told Mr. Sweets to go away. "My mother told me never to talk to strangers. Go away," he said.

This made Mr. Sweets mad, so he went to get some of his friends that Charlie knew. First of all, he sent over Susie Sucker. Now Charlie knew Susie, so the two of them played together and had a good time. Next, Mr. Sweets sent over Patty Pop and Gregory Gum. "Hi, Charlie," they called. "May we play with you today?"

"Sure, come on over," said Charlie. He had a good time that day and for many days after that. They became good friends, playing every day.

One morning when Charlie woke up, he didn't feel the same. (Use Sad Tooth.) He ached all over."OooOOoo," he groaned. "Mother, come here. I feel ache-y all over." Mother was worried, so she called her two doctors, Dr. Brushy and Dr. Pastey. When the two doctors came, they took one look at Charlie and knew what was wrong.

"We know what you need, Charlie," they said. "A good brushing will make you feel a lot better." So the two doctors gave Charlie the best brushing he had ever had. (Use Happy Tooth, again.)

"Now, Charlie," said Dr. Brushy, "this isn't going to be enough to keep you well. You've been playing with that old Mr. Sweets, haven't you?"

"Oh, no," said Charlie. "He came along, but I didn't play with him. I sent him away. I played only with Susie Sucker, Patty Pop, and Gregory Gum."

"Oh, Charlie," Dr. Pastey said. "Don't you know that they are special friends of Mr. Sweets? He sent them over to play with you. I'm afraid you can't play with them any more if you want to be a happy, healthy tooth."

"But, if I don't play with them, I won't have any friends to play with," cried Charlie.

"We know some better friends than that, Charlie," said the two doctors. "If you play with them, you'll be a happy, healthy tooth."

So Dr. Brushy and Dr. Pastey brought in their friends for Charlie to meet. First came Freddy Fruit, and then Virginia Vegetable.

"We know you'll like our next friend, Charlie," said the two doctors, "because he has a name just like yours. Here is Charlie Cheese. And our last friend is a very special friend. You'll want to play with her a lot. Maybe she'll even become your very best friend. Here is Michelle Milk. If you play with these friends, Charlie, and stay away from the friends of Mr. Sweets, you'll keep smiling every day."

"Thank you, Dr. Brushy and Dr. Pastey, for helping me to be a happy tooth again. I'll do as you say and keep Freddy Fruit, Virginia Vegetable, Charlie Cheese, and Michelle Milk for my friends."

Then all of Charlie's friends gathered around him and sang this little song to the tune of "Mary Had a Little Lamb":

Charlie is a happy tooth, happy tooth, happy tooth,
Charlie is a happy tooth—he wants to stay that way.
Keep your teeth healthy, too, healthy, too, healthy, too,
Keep your teeth healthy, too—just like Charlie Tooth.

This story, which is from the February, 1975 issue of *Early Years*, is reprinted with the permission of the publisher, Allen Raymond, Inc., Darien, CT 06820. The illustrations on pages F-22—F-31 are adapted from those done by the kindergarten staff at Noble Elementary School in San Jose, California.

Lesson 7. Identifying Health Professionals

An information acquisition lesson designed to help students identify four health professionals who provide advice on food selection in relation to dental and general health

Objective

After completing this lesson, students should be able to identify the doctor, dentist, dental hygienist, and nurse as people who help to keep them healthy.

Key Facts

One way dentists, dental hygienists, nurses, and doctors help people to be healthy is by observing and advising people about eating healthful foods and avoiding unhealthful foods. The job of the dentist is to check a person's mouth, teeth, and gums and to give advice on the prevention of tooth decay. The dentist also fills cavities when necessary. Most dentists have a dental hygienist who cleans teeth, teaches people how to care for their teeth, and shows them how to use dental floss.

Activities: The Role of the Dentist and Dental Hygienist

Procedures	*Materials needed*
1. Show pictures of a dentist and a dental hygienist. 2. Describe the job of a dentist (e.g., takes X-rays and fills cavities) and a dental hygienist (e.g., cleans teeth, shows people how to brush and how to use floss). 3. Invite a dentist and dental hygienist to visit the classroom to describe their job duties and show children the proper way to brush their teeth.	Pictures of a dentist and dental hygienist, pages F-39 and F-40

Activities: The Role of the Nurse

Procedures	*Materials needed*
1. Show a picture of a nurse and child. Encourage the children to describe medical treatment they have received from nurses. 2. Discuss a nurse's job: checks weight, height, temperature, pulse, blood pressure, plots weight and height on growth chart, and keeps records of the information. 3. Have the school nurse visit the class, discuss her job, demonstrate her equipment, and weigh and measure the students for future comparison.	Picture of a nurse, page F-41

Activities: The Role of the Doctor

Procedures	*Materials needed*
1. Show a picture of a doctor examining a child. Encourage children to describe medical treatment they have received from doctors. 2. Discuss a doctor's job: listens to heart and lungs; examines throat, eyes, and ears; and informs patients about general health, skin condition, allergies, deficiencies, and food-related diseases. Doctors help people get well when they are ill. 3. Invite a doctor to class to describe and, if possible, demonstrate his or her job duties.	Picture of a doctor, page F-42

Procedures	*Materials needed*
1. Discuss what foods a doctor, dentist, dental hygienist, and nurse would recommend for health. 2. Ask the students to compare the differences among the four jobs. 3. Have students solve "Who Am I?" riddles. A. I check your teeth. I take X-rays of your teeth. I fill caries when necessary. Who am I? (dentist) B. I look at your throat. I look in your ears. I look at your eyes. I listen to your heart and lungs. Who am I? (doctor) C. I clean your teeth. I show you how to use dental floss. I tell you how to take care of your teeth. Who am I? (dental hygienist) D. I measure how much you weigh. I measure how tall you are. I take your temperature and count your pulse. Who am I? (nurse) 3. Have students role play a dentist, dental hygienist, doctor, or nurse, and have other students guess who they are.	

Evaluation Suggestion

Have the students draw a picture of a person who helps to keep them healthy. Ask the students to identify the health professional in their picture and to describe what task the person is performing. (A teacher's aide could assist with this task.) Write students' responses on their pictures.

Food Service Involvement

Review a school lunch menu, and discuss how it contains the foods a doctor or dentist would recommend.

Notes

Lesson 8. Exploring Careers as Health Professionals

An open-ended discussion lesson through which students have an opportunity to share ideas, opinions, and feelings about careers as health professionals

Procedures	*Materials needed*
Discussion Sequence 1. Inform the students that the purpose of this lesson is to share ideas about people who work to keep us healthy. 2. Show the pictures of the dentist, dental hygienist, doctor, and nurse. Discuss that both girls and boys can choose each career. 3. Have students tell what each health professional does. Have one student role play as the other students identify each task. 4. Present the discussion rules outlined in Chapter One, page 4. 5. Present the discussion question: If you had a choice between being a dentist, dental hygienist, doctor, or nurse, which would you like to be? Why? 6. Conduct the discussion.	Pictures of dentist, dental hygienist, nurse, and doctor, pages F-39—F-42

Lesson 9. Identifying Sanitation Procedures

An information acquisition lesson designed to help students identify two sanitation procedures that should be practiced when food is prepared

Objective

After completing this lesson, students should be able to name two sanitation practices (cleanliness and temperature control) to follow when food is prepared.

Key Facts

Proper sanitation prevents food contamination. The key word for sanitation procedures is *cleanliness.* Sanitation procedures include keeping hands, work surfaces, and food clean and maintaining clean equipment, pans, and utensils.

Washing hands and counter tops are two of the most important sanitation procedures for preventing food contamination. These procedures for preventing food contamination are the ones most often overlooked.

Proper storage at correct temperatures to slow bacterial growth is another important sanitation practice.

Activities: Sanitation Procedures

Procedures	*Materials needed*
1. Grow a bacteria garden at least one week in advance of this lesson. (See pages 24-25 for specific directions.) Use dirty hands, cutting board, sponge, bruised fruit, and dirty counters as bacteria sources.	Direction sheet: "Bacteria and Mold Gardens," page 24
2. Show students the bacteria growth in each jar. Explain how dirty hands and counters can make a person ill if they are not washed before food is prepared. Mention that keeping food cold also slows bacterial growth. Ask the students which two steps they should follow when they prepare food.	Baby food jars with lids Sterile toothpicks Potato slices Tin can Tweezers Bacteria sources
3. Discuss the following questions and answers: a. What is salmonella? (It is a bacteria that causes a food-borne illness and is usually associated with ground meats, poultry, egg products, and cracked eggs.) b. What kinds of poor sanitation procedures can cause the growth of salmonella? (A person harboring salmonella handles food; food is left at room temperatures; mixed foods or sauces are not cooked long enough; food is prepared on a contaminated work surface.) c. Why should you wash your hands before you eat? (Salmonella bacteria on the hands or nails is washed off.)	

Evaluation Suggestion

Read aloud to the students the situations "Can You Help These Friends?" page 25. Ask the students to identify the sanitation procedure that should be followed in each situation. Ask the students to name what is wrong in each situation and what should be changed.

Food Service Involvement

1. Invite the food service manager to class to explain why and how student helpers wash their hands before they begin serving lunches and why food service workers clean their work surface areas.
2. Have students tour the cafeteria kitchen in small groups and observe the procedures taken to keep all areas and foods clean. The teacher will need to prearrange time for students to tour the kitchen, perhaps in small groups.

Notes

Bacteria and Mold Gardens

Bacteria and mold growth causes foods to spoil. These experiments will show you how bacteria and molds grow.

For bacteria gardens, you need:

Baby food jars with lids (one for each experiment you plan to do)
Slices of carrot, potato, or sweet potato, 1 x ¼ inches (2.54 x .64 cm)
Toothpicks
Tweezers
Tin can

To make bacteria gardens:

1. Wash your hands and the vegetable slices. Wash the tin can and the baby food jars and lids in hot, sudsy water. Rinse them in very hot water and dry them.
2. Use toothpicks to place the vegetable slices in the jars.
3. Put lids on the jars, but do not screw them on tightly. (The jars may explode if air cannot escape.)
4. Set the jars in a flat baking pan and place them in the oven. Also place some toothpicks (at least one for each jar) in the tin can and cover it with foil. Place the tin can in the oven.
5. Heat the jars and toothpicks at 250° F (121 ° C) for one hour. Heat will kill most of the bacteria on the vegetable slices, inside the jars, and on the toothpicks.
6. Let the jars cool. Do not remove the lids until you are ready to plant the bacteria.
7. Use tweezers to pick up a toothpick from the can. Do not touch the other toothpicks.
8. Touch the toothpick to a bacteria source, such as a piece of bruised or decayed fruit, seam in a wooden cutting board, kitchen work surface, clean hands, dirty hands, dish cloth or sponge, garbage can, sole of shoe, dog or cat fur, and so forth.
9. Quickly lift the lid of a baby food jar and rub the end of the toothpick over the vegetable slice.
10. Immediately replace the lid firmly. When planting the bacteria, raise the lid as little as possible to keep out any bacteria and molds that may be present in the air. Plant as many bacteria as you want.
11. Label the jar with a china marker or felt tip pen to identify the bacteria source.
12. Place the jars in a warm, dark place for a few days. Look at the jars. You should see bacteria as spots on the vegetable slices. Each spot is a colony made up of millions of bacteria.
13. Do not remove the jar lids and do not handle the bacteria gardens. When you are through with the experiment, throw away the jars and gardens. Do not try to save the jars.

How temperature affects bacterial growth. Smear bacteria from one source inside two jars. Label one jar "dark" and the other jar "light." Place the first jar in a warm, dark place and the other one in bright sunlight. Examine the jars each day for several days.

How sunlight influences bacterial growth. Smear bacteria from one source inside two jars. Place one jar in direct sunlight and the other jar in a warm, dark place. Leave the jar in the sunlight for several hours; then place it in the warm, dark place with the other jar. Examine the jars each day for several days.

For mold gardens, you need:

1. The same materials as for bacteria gardens
2. Molds from an orange, bread, blue cheese, or other source
3. A magnifying glass

To make mold gardens:

1. Follow steps 1 through 7 for making bacteria gardens.
2. Touch the toothpick to the mold source.

3. Follow steps 9 through 12 for making bacteria gardens. Look at the jars; you should see cultures of different types of molds. Examine each jar with a magnifying glass. Can you see strands that make some molds look like spider webs? Can you find little stalks with tiny black knobs on them? These are spore cases. Thousands of mold spores are produced in each spore case. The spore case bursts when it is mature or ripe. Each spore can develop into a new mold plant under the right conditions.
4. Do not remove the lids and do not handle the mold gardens. When the experiment is completed, throw away the gardens and jars. Do not try to save the jars.

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Can You Help These Friends?

1. Jose wanted to make lunch because he was very hungry. He started by cutting up tomatoes for his salad. What should Jose have done first? (Wash his hands and the counter top.)
2. Marie cleared the table and put the leftover chicken on the counter. What should Marie have done? (Cover and put the leftover chicken in the refrigerator.)
3. Jane cut up chicken on the cutting board. The chicken was not cooked. What should Jane do now? (Wash the cutting board.)
4. Mrs. Smith is packing a picnic lunch. What should Mrs. Smith do to protect the food and keep it safe to eat? (Keep the food as cold as possible.)
5. While cooking soup, Susie tasted it from the spoon she was using to stir it. What should Susie do next? (Wash the spoon or get a clean one.) Why? (So her germs do not get in the soup.)
6. Mark is eating lunch with his friends. He is going to sneeze. What should Mark do? (Turn his head and cover his nose and mouth with his hand or a napkin or tissue.) Why? (So his germs will not spread to his friends' food.)
7. Jimmy and his father have just returned from a fishing trip. They caught two fish and want to eat them for dinner. What should Jimmy and his father do now? (Wash their hands and clean the fish. Put the fish in the refrigerator.) Why? (The fish will stay clean and cold.)

Lesson 10. Decreasing Food Waste

An information acquisition lesson designed to help students identify one way of decreasing food waste during lunch at school

Objective

After completing this lesson, students should be able to identify at least one way to reduce food waste.

Key Facts

Most teachers are aware of the large amount of food that is wasted daily in school cafeterias. Sometimes, food is wasted because children do not like what is served. But very often food waste occurs because of carelessness. Students go back for second helpings they cannot eat, or they refuse to try new foods that are put on their trays. By observing the vast amount of food wasted, children, too, become aware of the problem. They can do their share to work towards less food waste.

Students can reduce food waste during lunch in many ways:

1. Tasting new foods on their trays before deciding they do not like them
2. Bringing their lunch from home on days they do not like the school lunch menu
3. Saving an item, such as an apple or banana, for after school
4. Not snacking at recess so that they will be hungry at lunchtime
5. Packing sack lunches they like and that are nutritious as well
6. Not rushing through their meals

Activities: Food Waste

Procedures	*Materials needed*
1. Discuss food waste and food consumption that occur during the school lunch period. Have students observe the amount of food wasted during lunchtime and report their findings to the class.	
2. Conduct a food waste experiment for one to two days. Arrange to have a large plastic container available to collect wasted school lunch food and a large plastic container to collect wasted sack lunch food. Have the students be sure no liquids, paper, and so forth, are collected. Milk can be collected in a number 10 can, available from the food service department. Weigh the plastic containers, measure the amount of milk, and record the results daily on the chalkboard. At the conclusion of the experiment, discuss possible reasons for the wasted food. (*Note:* Students participating in food collection or weighing should wear disposable gloves for sanitation purposes.)	
3. Present a puppet show, "Mandy and Tandy and Their Fight Against Food Waste," to illustrate ways of reducing waste.	"Mandy and Tandy and Their Fight Against Food Waste," story, page 27 "Paper Bag Puppets," page F-43

Evaluation Suggestion

On a blank sheet of paper, have the students draw a picture to show ways they can prevent food waste at lunchtime. Ask the students to describe what is in their pictures. Write their responses on the drawings.

Food Service Involvement

1. Ask the food service manager to assist in the food waste experiment. Have him or her explain to the class the economic impact of wasted food from the school lunch.
2. Make arrangements that enable the students to tell the food service manager which foods they like.
3. Invite the food service personnel to help stage the puppet show.

Mandy and Tandy and Their Fight Against Food Waste

Scene: Mandy Manager and Tandy Trash can are talking:

Mandy Manager: Oh dear, whatever shall I do? I just do not know what I am going to do (sigh). I work so hard all morning preparing food for the children, and every day after lunch I find my trash can so full of food it could burst.

Tandy Trash can: I think I am going to burst. (in a monotone)

Mandy Manager: There must be an answer to all this food waste.

Tandy Trash can: This sounds like a job for Wanda and Willy Wasteless.

Mandy Manager: Yes. I will have to contact them right away before it is too late.

Scene: Wanda and Willy Wasteless have just finished reading the letter from Mandy Manager.

Willy Wasteless: Wanda, did you read this letter from Mandy Manager?

Wanda Wasteless: Yes. It sounds as if they have the same problem our family used to have, *Food Waste.* (in unison)

Willy Wasteless: We will have to write her and tell her what we did to decrease food waste. Can you help me remember, Wanda?

Wanda Wasteless: Well, the first thing I remember is Dad telling us to *slow down.* Remember, I used to rush through a meal so that I could go out and play.

Willy Wasteless: I certainly do. My problem was serving myself too much. I thought I could eat the *whole* thing. I was so hungry sometimes, but I would get full halfway through. Now, I take just a *little at a time* until I am through.

Wanda Wasteless: Sometimes, Mom would fix too much, too. Then she started using *leftovers.* Remember the time we had leftover pizza for breakfast?

Willy Wasteless: Yep. That was great! I ate mine on the way to school because I was late that morning.

Wanda Wasteless: Mom also fixes a *variety* of foods so that we do not get tired of the same dish. Sometimes she fixes foods so interestingly that I cannot wait to eat.

Willy Wasteless: That's right, but we all have to take at least two bites of everything that is served to us.

Wanda Wasteless: That's not too hard. By eating a little bit each time, I discovered that I liked some foods that I thought I wouldn't like.

Willy Wasteless: Well, that's all I can think of. Maybe Mandy Manager could ask some of the students if they have any ideas and if they could help. I will get this in the mail right away.

Lesson 11. Identifying Appropriate School Dining Environments

An information acquisition lesson designed to help students identify two aspects of a school dining environment that may affect eating behavior

Objective

After completing this lesson, students should be able to identify two aspects of a school dining environment that may affect eating behavior.

Key Facts

A low noise level, proper table manners, and a clean eating environment make mealtime more enjoyable. In addition, a leisurely time to eat a meal adds to its enjoyment and aids a person's digestion.

Activities: The School Eating Area

Procedures	*Materials needed*
1. Show a videotape of the school lunch area taken during lunchtime, or ask students to observe the school lunch hour. Ask them to respond to the following questions: a. How do you feel about lunchtime at school? b. What improvements could be made? c. Is the behavior in the cafeteria acceptable? d. What are good table manners? e. Do we use good manners at school?	Videotape (optional)
2. List the good table manners given by the class, and have students make a set of rules to follow while they eat lunch at school. Record these rules on a poster and display it in the classroom as a reminder. Have the students practice good behavior during lunchtime. Reward those students who have shown improvement by giving them good manners buttons or certificates.	Poster board Felt pens
3. Lead the class with open-ended questions, and discuss the students' likes and dislikes. a. When the lunch area is clean, I feel . . . . b. When the lunch area is dirty, I feel . . . . c. When the lunch area is noisy, I want to . . . . d. I like eating in the lunch area with people who . . . . e. I like the lunch area best when . . . . f. I do not like to be rushed when eating because . . . . g. When my teacher eats with us, I feel	
List on the chalkboard the positive and negative aspects of the school dining environment identified by the students. Have them draw a picture of things that make the school lunch area pleasant. Post these pictures in the lunch area.	Paper Coloring materials

Evaluation Suggestion

Have each child fill out the "Lunch Area Environment" work sheet, on page F-44. (You may want to do this as a group activity.) Allow students to correct their own papers as you write the answers on the chalkboard.

Food Service Involvement

1. Arrange with the food service manager for the class to eat together prior to the regular lunch period so that the lunch area will be clean and quiet.
2. Make arrangements for students to tell the food service manager what they like about the school's dining environment.

Notes

Answer Key:

"Lunch Area Environment," page F-44
Clean/Dirty
Quiet/Noisy
Eat slowly/Eat too fast
Pleasant/Unpleasant

Lesson 12. Exploring School Lunch Area Values

A values awareness lesson in which students explore their values about eating in the school lunch area

Procedures to follow in the lesson	*Materials needed*
Activity Sequence	
1. Inform the students that they are going to participate in an activity which will help them become aware of their values (what they consider important) about eating in the school lunch area—what makes eating there enjoyable to them. Before dismissing the class members to lunch, tell them that they are to have a special assignment during lunchtime. As they eat lunch today, their special assignment is to prepare their own answer to the following question: "I like eating in the school lunch area because _____." Indicate that they are to have an opportunity to share their reasons in the classroom after lunch.	
2. Immediately after lunch, remind the students of the assignment. Invite the students to complete orally the sentence: "I like eating in the school lunch area because _____." List the students' responses on the chalkboard as they respond.	Chalkboard or chart paper
3. The following are some illustrative responses: a. You can eat with friends and talk with them. b. The food is pretty and tastes good. c. Adults are friendly and smile at us. d. It is quiet. e. You have plenty of time to eat.	
4. After students have responded, point out that they have reported things that are important to them—or values they hold—about eating lunch in the school lunch area.	
5. Tell the students that, with this list, they can now make a value statement about eating in the school lunch area. Demonstrate examples of the value statement for the students. For example, "One of my values about eating lunch in the school lunch area is that the food tastes good."	
6. Invite students to make a value statement about their reasons for wanting to eat in the school lunch area. For example, one student might say, "One of my values about eating lunch in the school lunch area is that I can eat with my friends."	
7. Conclude this activity by pointing out that some children share the same values about eating lunch in the school lunch area while other children may have different values about the same thing. And that's okay.	"Values Application" activity, page 30 Painting materials Tagboard strips

Note: When students respond with nonspecific reasons, such as, "It is good," you may want to respond with a clarifying teaching behavior, such as, "What is there about eating in the school lunch area that makes you say it is good?" (Some students may not yet have conceptualized what it is that they like and may be unable to respond to this question with specificity.)

Values Application

Provide time for the students to paint pictures of themselves eating lunch in the cafeteria. Mount these pictures on a bulletin board. Caption the display, "Eating in the School Lunch Area." Print the students' values on tagboard strips and post them above their pictures. Examples of values which children have decided upon might be quiet place, pretty food, eating with friends, good manners, and helpful teachers.

Lesson 13. Expressing Feelings About Foods and Eating Situations

An open-ended discussion lesson through which students have an opportunity to share ideas, opinions, and feelings about various foods and eating situations

Procedures to follow in the lesson	*Materials needed*
Discussion Sequence 1. Inform the class that the purpose of this lesson is to exchange ideas about various foods and eating situations. 2. Prior to the lesson, choose five to eight questions from the provided "values list." (The selected questions should be those you feel will most likely result in strong and diverse feelings being expressed by the students in your class.) 3. Prepare the classroom for this activity by: a. Having the students construct one "happy face" and one "sad face" b. Attaching the "faces" to ice cream bar sticks to form two puppets 4. Tell the students that you will be asking them several questions about how they feel about something and that you would like for them to show their feelings by responding in the following way: a. Inform the students that when they like or feel happy about the question, they should hold up the puppet with the "happy face." b. Instruct the students that when they dislike or feel unhappy about the question, they should hold up the "sad face" puppet. 5. Proceed to ask each of the previously selected "values questions" and allow the students adequate time to respond by holding up a puppet that shows how they feel about the topic. 6. While the students are responding to each question, observe which topic results in their exhibiting the strongest and most divergent feelings. (You will use that question as your discussion question.) 7. The discussion question to be used for this lesson will be the *one* "values question" which received the strongest and most diverse reaction from the class. "How do you feel about . . . ?" (For instance, if the question, "How do you feel about being required to eat something you don't like?" received a strong reaction, then that question would be the topic they would discuss.) 8. Present the discussion rules outlined in Chapter One, page 4. 9. Present the discussion question selected.	**Values List** How do you feel about: 1. Being required to eat something you do not like? 2. The school cafeteria? 3. Having to take everything they give you for lunch in the cafeteria? 4. Mealtime with the whole family? 5. Picnics? 6. Barbecues? 7. Oriental food? 8. Mexican food? 9. Italian food? 10. Restaurants that have menus especially for children? 11. Restaurants that do not have much light? 12. Food that is supposed to be good for you but that you do not like? 13. "Spicy" food? 14. Eating between meals? 15. Eating at a set time? 16. Eating on paper plates? 17. Eating at a friend's house? 18. Watching television while you eat? 19. Doing other things (playing, talking, listening to the record player) while you eat? 20. Eating alone? 21. Having turkey every Thanksgiving Day? **Puppet Materials** One "happy face" for each student (approximatey 4-5 in. [10—13 cm] in diameter) One "sad face" for each student (approximately 4-5 in. [10—13 cm] in diameter) Two ice cream bar sticks for each student

Grade Two Nutrition Lessons

The nutrition education lessons for students in grade two were designed as a resource for administrators, teachers, school food service employees, and others who wish to offer instruction about food choices, factors influencing food choices, food-related careers, consumer competencies, and food handling. The lessons and activities can be used in their entirety, or selectively. Each lesson activity provides a complete and detailed description of procedures and required instructional materials appropriate to the procedure.

Lesson 1. Classifying Foods According to the Basic Four Food Groups

An information acquisition lesson designed to help students classify foods according to the Basic Four food groups

Objective

After completing this lesson, students should be able to name the Basic Four food groups and to categorize a variety of foods according to each group.

Key Facts

The Basic Four food groups provide one way to classify foods. The food groups are the Milk and Cheese Group; Meat, Poultry, Fish, and Beans Group; Fruit and Vegetable Group; Bread and Cereal Group. Many foods belong in each of these groups. Foods that are high in calories and low in other nutrients are often high in fat or sugar. These foods are often considered "extras" and should be eaten in moderation only after the requirements from the Basic Four have been met.

Examples of the Basic Four food groups and some of the foods in them are:

Milk and Cheese	Meat, Poultry, Fish, and Beans	Fruit and Vegetable		Bread and Cereal	Extra Foods
Milk	Chicken	Apples	Asparagus	Breads	Corn chips
Cheese	Turkey	Bananas	Broccoli	Cereals	Candy
Yogurt	Pork (ham)	Cherries	Carrots	Rice	Sugar cookies
Cottage cheese	Beef	Grapes	Corn	Macaroni	Doughnuts
Ice cream	Veal	Lemons	Eggplant	Crackers	Butter
	Lamb	Oranges	Kale	Tortillas	Mayonnaise
	Nuts and seeds	Pineapples	Lettuce		Frozen nonfruit bars
	Dried beans and peas	Raspberries	Potatoes		
	Eggs	Strawberries	Radishes		
	Fish		Tomatoes		
	Shellfish				

Activities: The Basic Four

Procedures	*Materials needed*
1. Perform the flannel board story "The Good Health Train." Review the story and ask students the following questions: a. What were the names of the engine's four trainloads of food? b. What are some foods in the trainload of fruits and vegetables? c. What are some foods in the trainload of bread and cereal? d. What are some foods in the trainload of milk and cheese? e. What are some foods in the trainload of meat, poultry, fish, and beans? f. Why wouldn't the big black engine let the little engine come into the City of Good Health with only a load of fruits and vegetables? g. Would you have let the engine come into your city if it had only one trainload of fruits and vegetables? Why? h. Do we need all four food groups every day? Why?	Story: "The Good Health Train," page 37 Flannel board pictures, pages F-45—F-47

Procedures	*Materials needed*
2. On the chalkboard or overhead transparency, make a chart with five food columns (Milk and Cheese Group; Meat, Poultry, Fish, and Beans Group; Fruit and Vegetable Group; Bread and Cereal Group; and Extra Foods Group). Ask the students to name the foods they have eaten so far today. As students name the foods, list the foods on the board according to the food groups they represent. (Include foods not belonging to the four groups in the extra foods group; e.g., potato chips, colas, and so forth.) As each food is placed in a category, explain to the class why the food belongs in the category chosen. After all the students have had an opportunity to name their foods, inform them that they will learn one way to know what kinds of food they need each day to have a healthy body.	Food group chart, such as those available from the Dairy Council or the U.S. Department of Agriculture
3. Create a bulletin board that shows a train engine followed by five empty cars. Label each car with one of the Basic Four food groups and Extra Foods classifications. As students study each food group, have them place appropriate foods in the train car labeled with the name of the food group. Keep the bulletin board on display until the lesson has been completed and all students can name the five food groups and the sample foods in each group. Title the bulletin board "The Food Train—It Makes You Go." *Optional Activity.* Make a country store in class by having the students bring in empty food containers and classify them on the store shelves.	Bulletin board train master: pages F-45—F-47 Food pictures (from magazines or Dairy Council)
4. Have students play "Food Groups Bingo." Each student is given a bingo card and markers to cover the squares. The teacher calls out the foods until someone gets five in a row. (*Note:* This is a good rainy day game.)	"Food Groups Bingo Cards," pages F-48—F-62 Teacher key, page F-63
5. Have the students complete the work sheet "Food Groups." Discuss student answers. *Optional:* It may be desirable to develop a work sheet that lists foods which students need practice in classifying.	Work sheet: "Food Groups," page F-64
6. Conduct the "Four Food Group Relay Game."	"Four Food Group Relay Game," page 38
7. Play "Toss a Food." Toss a ball around the class. As the ball is tossed, call out a food. The student who catches the ball must name the corresponding food group. If students identify the wrong food group, they are out. Play the game in teams and keep points.	Food pictures or food labels Food group poster (see directions, page 38) or four shoe boxes or paper bags
8. Have the students complete the four work sheets, "Food Group Circles."	Work sheets: "Food Group Circles," pages F-65—F-68
9. Give the students the handout, "Basic Four Food Groups" to color and take home.	Handout: "Basic Four Food Groups," page F-69

Evaluation Suggestion

Have students complete the "Which Group?" work sheet on page F-70.

Food Service Involvement

1. Have the food service manager assist with class tasting parties. (The students have an opportunity to taste small samples of nutritious foods, new foods, or new recipes.)
2. Ask the food service manager to display a "Food Train" bulletin board in the school's eating area and to incorporate in the school lunches as many foods discussed in class as possible.
3. Invite the food service manager to class to discuss those food groups included in the school lunch.

Notes

Answer Key:

"Food Groups," page F-64
Put an *X* on: 1. fish, 2. cheese, 3. strawberries, 4. bread, 5. broccoli, 6. pork chop

"Food Group Circles," pages F-65—F-68
Meat, Poultry, Fish, and Beans Group:
circle: a, c, e, h

Milk and Cheese Group:
circle: b, d, g, h

Bread and Cereal Group:
circle: a, e, f, g, j

Fruit and Vegetable Group:
circle: a, e, g, h, i

"Which Group?" page F-70
1. Meat, Poultry, Fish and Beans (B)
2. Meat, Poultry, Fish, and Beans (B)
3. Fruit and Vegetable (D)
4. Bread and Cereal (C)
5. Bread and Cereal (C)
6. Milk and Cheese (A)
7. Meat, Poultry, Fish, and Beans (B)
8. Fruit and Vegetable (D)
9. Fruit and Vegetable (D)
10. Bread and Cereal (C)
11. Fruit and Vegetable (D)
12. Milk and Cheese (A)
13. Meat, Poultry, Fish, and Beans (B)
14. Bread and Cereal (C)
15. Fruit and Vegetable (D)
16. Fruit and Vegetable (D)
17. Meat, Poultry, Fish, and Beans (B)
18. Bread and Cereal (C)

The Good Health Train

Once upon a time there was a little black engine that had big round wheels, a smokestack, and a window so the engineer could see out. This engine had a white flag that said, "Good Health Train."

The engine was so new that he had never gone any place. He had just been moved from the factory where he was built to the roundhouse where he would work.

From hearing the men talking, the engine learned that he was going to pull a train to Good Health Town. He was so excited that he could hardly wait to begin.

Very early the first morning, he looked around and saw a bright red car with a flag over it. The flag said, "Meat, Poultry, Fish, and Beans." "I know that is the car that I am to take to Good Health Town," the engine said.

So he chugged over to the red car and hooked onto it. Then the engine, feeling proud and happy, went chugging down the track toward Good Health Town.

Just before he got to the edge of the town, a big black engine came out to meet him. "Stop! Stop!" shouted the big black engine. "You can't come into Good Health Town with nothing but meat. It takes more than meat to get to Good Health."

"Oh, dear," said the little engine. "I'll have to go back. I did not know there were more cars for me to pull." And he turned around and went chugging back down the track the way he had come.

He returned to the roundhouse, looked around, and saw a bright blue car whose flag said, "Bread and Cereal." "That's it! That's the one I need," he said. He hooked the blue car on behind the red one and chugged happily down the track toward Good Health.

At the edge of town, he saw the big black engine again. "Stop! Stop!" the big black engine called. "You can't come into Good Health Town with only meat and grain products. It takes more than that to get to Good Health."

"Oh, dear," said the little engine, "I'll have to go back again. I didn't know there were more cars for me to bring." He felt a little discouraged, but he turned around and went chugging back down the track.

In the roundhouse he saw a green car with a flag that said, "Fruit and Vegetable." "Of course," said the little engine, "I should have known I'd need fruits and vegetables." He hooked the green car behind the red one and the blue one and started back toward Good Health.

At the edge of town, he met the big black engine again. "Stop! Stop!" shouted the big black engine. "You need meat, poultry, fish, and beans; and breads and cereals; and fruits and vegetables; but you need something more before you can come into Good Health."

The little engine began to feel very discouraged indeed, but he turned around and went chugging back down the tracks to the roundhouse.

In the roundhouse he looked around and he saw a yellow car. The flag on it said, "Milk and Cheese." "There is the car I need," said the little engine; and he hooked it on behind the green one. Down the track he went toward Good Health.

When he came to the edge of Good Health Town, the big black engine was nowhere in sight. The little engine chugged right into Good Health Town. The stationmaster came out on the platform. He looked at the little engine; then he looked at the cars the little engine was pulling. "Well, well," said the stationmaster, "Meat, poultry, fish, and beans; bread and cereal; fruit and vegetable; milk and cheese—it looks as if you have all the good food you need to come to Good Health Town."

The little engine tooted happily. He had made it. He finally had all the cars he needed to go to Good Health.

Now he goes up and down, up and down the track every day, taking cars loaded with good food to the town of Good Health.

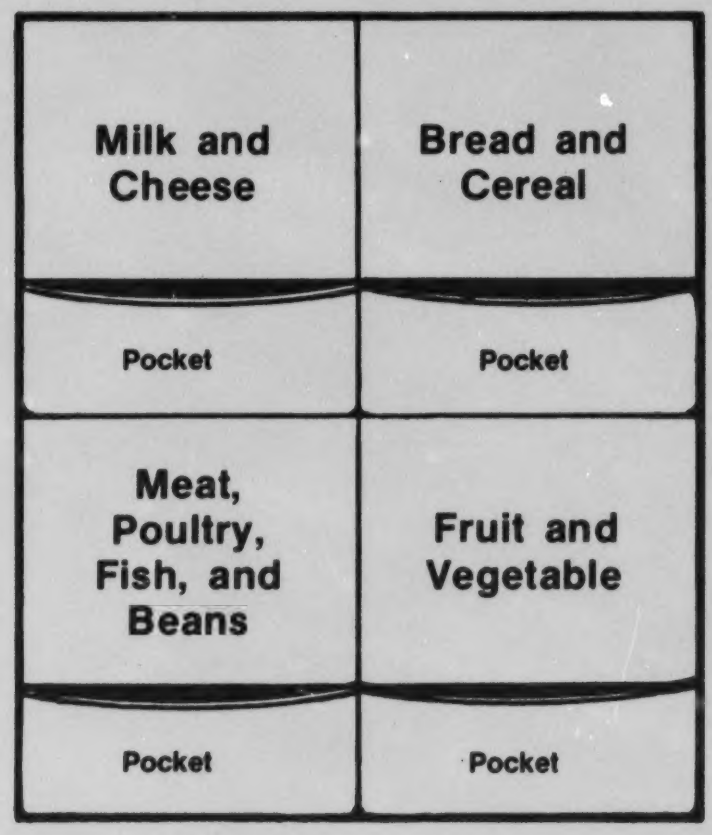
And if you will eat some food from every one of these cars every day, you will get to Good Health, too.

Follow-up Activity to "The Good Health Train"

After telling the story and discussing the various kinds of foods that would go in each car, have the children find pictures of foods in magazines, or draw them, cut them out, and put them in the proper cars. The cars with their foods might make a fine bulletin board display. From these activities the children have learned what kinds of foods to eat and how to classify them.

Four Food Group Relay Game

1. Paste pictures of food or write the names of food on red and blue pieces of paper. There should be 15 to 20 cards of each color, with representative foods from each food group in each set.
2. Construct a poster, as shown below, or have four shoe boxes or paper bags labeled and placed in front of the class.



3. Divide the class into two teams, and have them form two lines.
4. Distribute food cards to each student: red cards to one team, blue to the other.
5. When the teacher says, "Go," the first student in each line goes to the poster, places his or her card in the proper pocket, and returns to tag the next person who goes to the poster.
6. Check the correct classifications of food cards.
7. The first team to finish with the fewest errors wins.

NOTE: The poster can be converted into a bulletin board. Place envelopes with food cards in them next to the poster.

Lesson 2. Identifying Servings from the Basic Four Food Groups

An information acquisition lesson designed to help students identify the number of servings needed daily from each of the Basic Four food groups

Objective

After completing this lesson, students should be able to identify the number of servings needed from each of the basic four food groups.

Key Facts

Serving sizes and number of servings differ according to a child's age and body size. A serving is the amount of food usually eaten at one time and supplies an adequate amount of needed nutrients.

The recommended number of servings from each food group per day for a child from six to eight years of age is:

Milk and Cheese Group = three servings (one serving = 8 oz. [240 mL] of milk or equivalent amounts of other milk products)

Meat, Poultry, Fish, and Beans Group = two servings (one serving = two slices, 2 oz. [55 g] of cooked lean meat, poultry, or fish; four tablespoons [55 g] of peanut butter; or ½ cup [110 g] cooked dried beans or peas)

Fruit and Vegetable Group = four servings (one serving = ½ cup [120 mL] juice; ½ cup [110 g] cooked fruit or vegetable; or one piece raw fruit or vegetable)

Bread and Cereal Group = four servings (one serving = one slice bread; ½ cup [110 g] cooked cereal; or 1 oz. [30 g] dry cereal; or ½ cup [110 g] rice, spaghetti, or noodles)

Activities: Basic Four Servings

Procedures	*Materials needed*
1. Read or review the story *Goldilocks and the Three Bears*. Conduct a question and answer time after the story to help students understand that a serving size differs according to one's body size. Include the following questions: a. What is porridge? (a food similar to oatmeal) b. Who had the largest bowl of porridge and who ate the most porridge? (Papa Bear) c. Who had the smallest bowl of porridge? (Baby Bear) d. Why do you think Papa Bear ate all of his porridge? (He is bigger than Baby Bear and needed more food.)	Story: *Goldilocks and the Three Bears* (available at a school or local library)
2. Introduce "Every Day the 3-2-4-4 Way," by making a poster or writing on the chalkboard the food groups and their respective serving amounts. (Refer to "Key Facts" in this lesson.) Relate the numbers to the recommended servings for each food group. Write the numbers next to the food groups listed on the board. Write a day's menu on the board (see below). Have students classify foods and then count the number of servings in the menu. What is needed to meet the number of required servings?	

Breakfast	*Lunch*	*Snack*	*Dinner*
1 scrambled egg 1 piece of toast ½ cup (120 mL) juice	1—5 oz. (140 g) bean burrito Apple 1 cup (240 mL) milk	Peanut butter in celery 8 crackers	1 Chicken drumstick ¼ cup (55 g) mashed potatoes ¼ cup (55 g) green beans 1 cup (240 mL) milk ½ cup (110 g) peach cobbler

Activities: Basic Four Servings—Continued

Procedures	*Materials needed*
(Need to add one serving from the Milk and Cheese Group and one serving from the Bread and Cereal Group)	
3. Have students play "Batter-Up" baseball game.	"Batter-Up Game" directions, page 41
4. Play "Toss a Food Group." Toss a ball around the class. As the ball is tossed, the teacher calls out a food group. The student who catches the ball must identify the number of servings required each day. If the answer is incorrect, the student is out. Play the game in teams and keep points.	Work sheet: "Batter Up Game," page F-71
5. Have the students construct food group mobiles to show the number of servings for each food group. Or, have students cut circles from construction paper and label the circles with "3-2-4-4" (directions below). Have students wear the "3-2-4-4" buttons.	Food pictures (from magazines or Dairy Council) Construction paper String Felt markers Safety pins

Evaluation Suggestion

Have students complete the work sheet "How Many Servings?" page F-72.

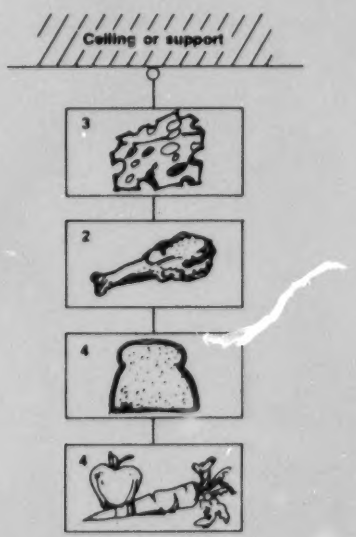
Food Service Involvement

Invite food service employees into the classroom to help students use scales to study serving sizes. Ask food service employees how servings are measured for school lunches.

Notes

Mobile Construction

The simplest mobile is a series of cards, each one hanging from the bottom center of the other. To attach the string to the cards, punch a hole in the center of each card and thread the string through it; then attach the string to each card with scotch tape.



3-2-4-4 Button Construction

Answer Key:

"How Many Servings?" page F-72
Milk and Cheese Group - three
Meat, Poultry, Fish, and Beans Group - two
Fruit and Vegetable Group - four
Bread and Cereal Group - four

Batter-Up Game

1. Give each student a "Batter-Up" work sheet, page F-71. Have the student list the foods desired for one complete day (breakfast, lunch, dinner, and snacks).
2. Divide the class into two teams.
3. Ask a student from the first team to identify the foods listed for each meal or snack on his or her "Batter-Up" work sheet.
4. A scorekeeper from each team tallies the number of servings in each of the four food groups on the chalkboard. (See diagram below.)
5. Scoring: *NOTE:* Scorekeepers must know the four food groups very well.
   a. If the servings add up to the correct number for the day (three milk and cheese; two meat, poultry, fish, and beans; four bread and cereal; and four fruit and vegetable), the child's team scores a home run.
   b. If the student gets the correct number of servings for fewer than the four groups, he or she proceeds to the corresponding base (i.e., if a student has identified the correct number of servings for two groups, he or she proceeds to second base; if three are correct, third base; and so forth)
   c. One-dish meals that combine foods from each of the four food groups can be handled two ways:
      (1) If it is a dish that would probably provide a serving in each of the four groups, a point may be given in each group.
      (2) If it is not likely that a complete serving would be eaten in each group, designate the most prominent food in the group for the scoreboard.
6. Continue the game, allowing three people from team A to respond. Then ask for team B's response. Alternate the teams after the third response.

   The game may be continued as many days as desired, starting with a new inning each day. Students go through the same procedure for each inning and record their food intake from the day before.

Bread-Cereal		Fruit-Vegetable		Milk-Cheese		Meat-Poultry-Fish-Beans	
Team A	Team B	Team A	Team B	Team A	Team B	Team A	Team B

Lesson 3. Exploring Values About Fresh Fruits

A values awareness lesson in which students explore their values about specific fresh fruits

Procedures	Materials needed
Activity Sequence	
1. Inform the students that the purpose of this lesson is to explore their values about different kinds of fruit.	
2. Make copies of the "Favorite Fruits" work sheets. Cut them in half along the dotted line.	"Favorite Fruits" work sheet, pages F-73 and F-74
3. Select the fresh fruits that you would like the students to taste. A manageable number is two or three. Bring enough of each fruit so that each member of the class will have a small piece to taste. Vary the size, shape, and texture of the fruits.	Two or three different fresh fruits—enough for each student to have a small piece to taste
4. Distribute one one-half page form for each fruit the class will taste. (Two fruits = two forms for each child.)	
5. Have the students place their names on the work sheet. Demonstrate the procedures for filling out the form as you make your own sample form.	Work sheet sample: "Favorite Fruits," pages F-73 and F-74
6. Have students print the name of the fruit on the first blank line at the bottom of the form. Showing a sample form, print the names of the fruit in large letters on the chalkboard or overhead projector so that the students may copy the spelling.	Crayons or colored pencils for each student
7. Display the first fruit to be tasted. Let the children come up and see it more closely.	
8. Ask the students to draw and color a picture of the fruit in the large square on the form with only one fruit on each form. Show the sample form.	Chalk and board or overhead transparency and projector
9. While the students are drawing and coloring the first fruit to be tasted, prepare it by cutting it into small pieces and placing it on a small paper plate so that there will be one whole fruit and one prepared fruit of the same variety. (If a fruit requires much preparation, it should be done ahead of time.)	Knife Paper towels Cutting board Wet towels Napkins
10. During this time, discuss the various ways that this fruit might be used (sliced fresh or in a salad, in a pie, or cobbler, and so forth).	
11. Demonstrate the tasting procedures for the students. First, tell them to smell the fruit and to look at it closely. Next, tell them to take small bites and to roll the bite of fruit around in their mouths. Tell them to close their eyes and concentrate on the texture and taste of the fruit.	
12. Choose some helpers and distribute the first prepared fruit.	
13. Ask for volunteers to tell the group one thing they liked about the fruit. Write these words or phrases on the chalkboard (sweet, soft, chewy, crisp, and so forth).	
14. Repeat the procedure (steps 7—13) with the remaining fruit(s). Keep the words used to describe the second fruit separate from those of the first and so forth.	
15. Ask the students to clean up their desks, leaving only their work sheets and a pencil.	
16. Tell the students that when they were describing what they liked about each of the fruits, they were really expressing their values about that particular fruit.	

Procedures	Materials needed
17. Point to the list of words they used to describe the first fruit. Say, for example, "These are some of the values some of you have about grapes. You want them to be juicy, sweet, smooth, and so forth." 18. Direct the students to copy *one* word or phrase that reflects one of their values about grapes. Tell them they may have several values about grapes, but ask them to stick to one for this lesson. If the word that describes their value is not on the chalkboard, write and spell it for them. They should copy the word on their work sheet on the last line. Demonstrate this for the students by showing them the sample form. 19. Each student should now have a value statement reading, "One of my values about grapes is that they are juicy (soft, smooth . . .)." Invite students who wish to do so to share their value statements. 20. Repeat the procedure (steps 17 through 19) for the remaining fruit(s).	

Lesson 4. Planning a Meal

An open-ended discussion lesson through which students have an opportunity to share ideas, opinions, and feelings about planning a meal

Procedures	*Materials needed*
Discussion Sequence 1. Inform the students that the purpose of today's lesson is to help them explore their ideas about meal planning. 2. Tell the students you are going to read them a story about someone their own age who had a difficult choice to make. 3. Inform the students that at the end of the story you will give them an opportunity to help the girl in the story with her choice. 4. Read the story "A Surprise Lunch for Mom." 5. Present the discussion rules outlined in Chapter One, page 4. 6. Present the discussion question: If you were Kimberly, what would you choose to serve for your mother's surprise lunch? 7. Conduct the discussion.	**A Surprise Lunch for Mom** Kimberly is seven years old. She is the first child in the family and is *very* excited, because her mother just had a new baby boy! She is especially happy to hear her Daddy tell her that Mommy will be back home from the hospital tomorrow morning. "Oh, boy!" said Kimberly. "She can cook us lunch." "I don't think so," replied Dad. "Having a baby is hard work. She is probably very tired. Let's make lunch for her. "Tell you what," said Dad. "You plan a nice lunch and I will take you to the grocery store to buy what you need. Remember that Mom needs good healthful food to help her feel better. Then, after we go to the hospital to pick up Mom and your new brother, I can help you fix lunch." Kimberly thought and thought, but it was a hard decision. If you were Kimberly, what would you choose to serve for your mother's surprise lunch?

Lesson 5. Choosing Nutritious Snack Foods

An information acquisition lesson designed to help students specify two nutritious snack foods that could be brought to school for class parties

Objective

After completing this lesson, students should be able to identify two nutritious snacks that could be used for special occasions.

Key Facts

We like to have special foods for special occasions like parties at school.

Nutritious foods can be made into party snacks by doing something "special" to them. Snacks for parties can be selected from the four food groups.

Activities: Food for Class Parties

Procedures	*Materials needed*
1. Inform the students that they will be using their imaginations to make special snacks for parties.	
2. Show pictures of foods; e.g., eggs, chicken, bread, carrots, milk, raisins, cheese, pears, and crackers. Ask the children to name the foods.	Food pictures from the Dairy Council or from magazines
3. Ask the students how many of them eat these foods at home. Encourage them to talk about the times when they usually eat the foods. Most children will associate the foods with specific meals (e.g., eggs for breakfast, chicken for dinner, and bread for sandwiches at lunch).	
4. Ask the students if they would think of bringing any of these foods to a party at school. Why or why not? Encourage the class to discuss that meals at home happen every day. Parties are festive times that do not happen every day. Certain fancy foods are often associated with festive or special times like parties.	
5. Tell students that ordinary foods eaten every day can be made into special foods for parties by preparing them differently. They can be decorated to look pretty or made to look like things we think of on special holidays; e.g., on Halloween, we think of pumpkins and ghosts. Ask students what they think of at other holidays; e.g., Easter (bunnies), Chinese New Year (dragons), Fourth of July (flags and fireworks), Christmas (trees and wreaths).	
6. Tell students they are going to learn how to make ordinary foods into special foods for Halloween or other holiday times. Show students the basic ingredients and how to make the snacks. Encourage parent volunteers to assist in making snack foods in the class.	"Holiday Foods" teacher idea sheet, pages D-1—D-3 in the appendix
7. Repeat the lesson for other holidays throughout the school year. At the end of the year, compile recipes and have the students make a booklet that they can take home entitled "Special Foods for Parties." (Or, the recipe used that day could be made into an illustrated work sheet that students can take home.)	

Evaluation Suggestions

1. Ask students what makes food special for parties. Ask them to name two foods that were used to make special snacks for parties.
2. Observe the students' willingness to accept nutritious snacks at parties throughout the school year.

Food Service Involvement

1. Ask the food service manager to describe special holiday preparations to the class.
2. Ask the food service manager to demonstrate how to prepare holiday foods and, if possible, to provide food so that students can prepare holiday foods in the classroom.

Notes

Lesson 6. Understanding Digestion

An information acquisition lesson designed to help students identify two sequential steps in the process of digestion

Objective

After completing this lesson, students should be able to identify two sequential steps in the digestion process.

Key Facts

Digestion is the process through which the body changes food eaten into usable forms for body building and fuel.

The *mouth* is responsible for softening the food. As a person chews, saliva is produced, which moistens the food, and the teeth break the food into smaller pieces.

The *esophagus* is the passageway for food to the stomach. The esophagus is lined with muscles which force food downward. Liquids require about one second to travel, and solids take six to seven seconds.

The *stomach* works on food by mushing and churning it, and pushing it farther downward. It can hold food for over four hours. When food has been changed to an almost liquid form, it is pushed out of the stomach into the small intestine.

The *intestinal system* consists of both the small and large intestines. The job of the small intestine is to sort the foods eaten into what the body can use and what is to be discarded. Food particles that are small enough pass through the villi, which cover the wall of the small intestine, and are absorbed into the bloodstream. These particles are either used or stored. The large intestine then carries away the waste to be discarded. For food to travel through the small and large intestines requires from 13 to 20 hours.

Activities: The Digestive System

Procedures	*Materials needed*
1. Using a hand-drawn diagram of the digestive system (either on a transparency or large tag board), ask a student to point out where digestion begins. Continue the questioning until the mouth is pointed out. Explain that digestion begins when the mouth chews and breaks down the food. Have another student point out where the second step of digestion takes place. Continue the questioning until the esophagus is pointed out. Explain that the esophagus, by a series of muscle contractions, moves the chewed food to the stomach, where a churning process continues to break down the food. The contents of the stomach move along to the small intestine whose villi absorb the nutrients into the bloodstream. Waste products are eliminated after they pass through the large intestine. If possible, use a human torso that comes apart to illustrate the process. Identify the body parts involved in digestion.	"Digestive System Diagram," page F-75
2. Using the following steps, demonstrate the process of digestion:	
a. Grind some food in a blender (mouth). Be sure to add some liquid (saliva).	Blender Funnel Jar Small bowl Cheesecloth Food sample
b. Pour the blender contents into a funnel (representing the esophagus) placed over a jar (representing the stomach) to show how the stomach stores food and controls the amount that goes into the intestines.	
c. Hold the funnel over a bowl of water (bloodstream) covered by a piece of cheesecloth (small intestine). Pour the contents from the jar into the funnel and into the cheesecloth and bowl.	

Procedures	*Materials needed*
d. Explain that part of the food is absorbed through the intestine walls into the bloodstream. What is not absorbed is waste and is discarded by the body. (Pick up the cheesecloth and drop it into a wastebasket.)	
e. Discuss what would happen if food is not chewed thoroughly in the mouth or if the funnel (esophagus) is blocked.	
3. Have students complete the work sheet "Follow the Digestive System."	Work sheet: "Follow the Digestive System," page F-76
4. Conduct an experiment to show the need for chewing food. Take two cubes of sugar; crush one and leave the other one whole. Drop the sugar cubes into separate glasses of water and stir the contents. Ask the students to identify which sugar cube dissolves faster. Explain to them that before the food they eat can be used by their bodies, it has to dissolve so that it can be absorbed by their blood. Foods that are broken into small parts dissolve faster, as the sugar cube experiment showed. Most of the food is dissolved in the stomach, but students can shorten the time required to dissolve food by chewing their food well into small pieces.	Two sugar cubes Two glasses of water
5. Have the students taste a dried fruit (apples, apricots, peaches). Ask them to notice how saliva forms as they chew and to feel their necks as they swallow the fruit so that they can feel the muscle action. Review the path of digestion with the class. Ask students to visualize the digestive process as they are eating the dried fruit.	Dried fruit

Evaluation Suggestion

Have students complete the work sheet "The Food Tube," page F-77, by labeling the parts of the body involved in digestion.

Notes

Answer Key:

"Follow the Digestive System," page F-76
boxes—mouth, small intestine, esophagus, stomach, large intestine

1. mouth, 2. esophagus, 3. stomach, 4. small intestine, 5. large intestine

"The Food Tube," page F-77
See the "Digestive System Diagram," page F-75.

Lesson 7. Identifying Food Advertising Techniques

An information acquisition lesson designed to help students identify advertising techniques

Objective

After completing this lesson, the students should be able to identify one kind of advertising technique.

Key Facts

An advertisement is a message transmitted via television, radio, newspapers, magazines, and so forth that is intended to sell something or to provide information.

Some techniques used by advertisers to get people to buy the product are:

1. Free gifts
2. Colorful, attractive packaging
3. Food that looks fun
4. Emphasis on health
5. Catchy tunes
6. Emphasis on widespread product usage (band wagon approach)
7. Star endorsement

Food advertisers are not always too concerned with the nutritional value of their products. They sell what people like and will buy. People do not always buy what is good for them.

Activities: Breakfast Cereal Advertisements

Procedures	*Materials needed*
1. Introduce advertising techniques for selling by holding up examples of cereal boxes the children brought, or use advertisements cut from magazines.	Variety of cereal boxes or variety of advertisements from magazines
2. Prepare a poster and/or color the work sheet entitled "Why Would You Buy It?" Discuss each technique shown on the work sheet.	Work sheet: "Why Would You Buy It?" page F-78
3. Construct a play TV set from a large cardboard box. Assign a student to be an advertiser and have him or her sell a product to the class. Review with the class the techniques used.	Large cardboard box
4. Show the class a film or filmstrip about advertising methods, or view children's programs with commercials and discuss the sales techniques.	Film: "Seeing Through Commercials," Vision Films (available from the Nutrition and Food Service Education Resource Center)
5. Have the class make up a catchy tune about a good food, and sing this song for parents at an open house.	
6. Have the class make up commercials about good foods they like to eat.	

Evaluation Suggestion

Have students complete the work sheet "Yum-Yums," on page F-79, by using one advertising technique discussed in class.

Food Service Involvement

Ask the food service manager to visit the class and discuss with the students how the school lunch is advertised and promoted (menus sent home, food attractively prepared and served).

Lesson 8. Prohibiting Toys in Cereal Boxes

An open-ended discussion lesson through which students have an opportunity to share ideas, opinions, and feelings about a law banning free toys in cereal boxes

Procedures	*Materials needed*
Discussion Sequence 1. Inform the students that the purpose of this lesson is to share their feelings about an imaginary law. 2. Tell the students you will read them a story about Jim and something he learned while watching television. After you finish the story, they will have a chance to tell their feelings about this law. 3. Read the story "No More Toys." 4. Present the discussion rules outlined in Chapter One, page 4. 5. Restate the discussion question: Is this law good or bad, and why? 6. Conduct the discussion. 7. Be sure students understand that such a law does not exist and was used only for the purpose of discussion.	**No More Toys** Jim was watching television with his mother one day when the man on the show said something about a new law that would ban free toys in cereal boxes. Jim did not understand what the man meant, so he asked his mother to explain it. This is how his mother explained the law to Jim. The people who make laws for our country have passed a new law stating that companies that make cereals cannot put free toys in the boxes anymore. The free toys make the cereal cost more but do not make the cereal a better food for people. To keep the price of cereals down, the new law says that no more free toys will be allowed in cereal boxes. Is this law good or bad, and why?

Lesson 9. Exploring Breakfast Food Packaging

A values awareness lesson in which students explore their values about breakfast food packaging

Procedures	Materials needed
Activity Sequence	
1. Several days before the values awareness lesson:	
a. Tell the students that in a few days they will be exploring their values about breakfast cereal boxes. For this lesson the class will need a variety of these boxes. Ask the children to bring in empty cereal boxes from home, and give them a copy of the sample letter, or a modified version, to show their parents.	Sample letter to parents, page F-80
b. As students bring their empty food boxes, display them in the classroom. Also inform the class that since only one box of each kind of breakfast cereal is needed, no one else need bring in the same kind of boxes already on display.	Cereal boxes
2. On the day of the lesson:	
a. Distribute one voting chip to each student.	Voting chips, such as marbles, squares of construction paper, or paper clips
b. Explain to the students that they are going to use their voting chip to vote for the box they like the best by placing their voting chip inside the box. Emphasize that they are voting for the box because they like it best. They are not voting for the cereal.	
c. Give the students an opportunity to vote, using whatever procedure seems most appropriate. (For example, you can have the students drop their voting chips in their favorite box as they walk by. Try to develop a voting method so that students will be unable to influence each others' votes.)	
d. After all of the students have voted, ask them to report which box they voted for and why they liked that box best. If students respond by saying, "I like it" or "It's pretty" or "It's nice," follow up by asking them, "What is there about the box that makes you say, 'I like it'?"	
e. After the students have reported their preferences and reasons, point out that when they gave their reasons for liking a particular box, they were stating their values about breakfast cereal boxes. For example, "Jennifer, when you said that you liked that box because it has a game on it, you were saying that one of your *values* about breakfast cereal boxes is that they have a game on the back."	
f. Conclude the lesson by dumping out the voting chips from each of the boxes. Invite the students to count the chips to see which was the class's favorite breakfast cereal box.	

Lesson 10. Packaging Foods for Sale

An open-ended discussion lesson through which students have an opportunity to share ideas, opinions, and feelings about packaging foods for sale

Procedures	*Materials needed*
Preparation Several days before the lesson, begin collecting various examples of commercial food packaging to show the class. Be prepared to explain the reasons for each type of packaging. Some suggested examples are included.	**Suggested Items of Commercial Food Packaging** 1. *Cooking bag inside the box* (frozen foods): The bag keeps in moisture and flavor and adds convenience in cooking. The box is uniform in size for easier storage, and the cover provides an attractive merchandising device. 2. *Soup can and label:* The can seals in the liquid, prevents bacteria from growing in the soup, and prevents the soup from evaporating. The label provides attractive advertising and nutrition information. 3. *Fast food wrappings* (e.g., hamburger): The tissue or bag keeps the meat juices in and protects the customer from drips. Plastic foam keeps the sandwich warm and prevents crushing. The outer bag provides advertising and convenience. 4. *Tea bag, tea box, cellophane:* These wrappings keep the tea fresh and protect it from moisture. The tea bag provides a convenient single serving. 5. *Breakfast cereal box and inner liner:* The inner liner keeps the cereal fresh and protects it from dirt or insects. The box provides convenience, additional protection, and advertising. 6. *Common household packaging items* (plastic wrap, plastic containers, foil): These provide a means of storing food to keep it fresh and to protect it from insects.
Discussion Sequence 1. Inform the students that the purpose of this lesson is to give them a chance to explore the importance of careful, attractive food packaging. 2. Show the students the packaging items you have collected. 3. Demonstrate how each item fits together if the packaging requires several layers. 4. Explain briefly the uses of each type of packaging. (*Option:* You may wish to check the class's understanding of packaging by demonstrating some "I learned" statements, such as "I learned that plastic foam helps keep foods warm (or cold) and prevents the food from being crushed.") 5. Tell the students to keep in mind the various types of packaging they just saw and also to think about some other types of commercial food packaging as they listen to the story you will soon read. 6. Read the story "Great Cookies," page 53. 7. Present the discussion rules outlined in Chapter One, page 4. 8. Restate the discussion question: If you were Todd or Terri, how would you package your cookies? 9. Conduct the discussion.	
10. After the discussion, have students design their own cookie packages.	Drawing paper or plain brown paper bags Crayons

Procedures	Materials needed
	Great Cookies Todd and Terri McCall are brother and sister. He is eight and she is seven. They like to cook their own snacks. One of their favorite snacks is peanut butter cookies. Last year their Mom helped them find a recipe for great peanut butter cookies and taught them how to measure and mix the ingredients. Everyone who has tasted their peanut butter cookies likes them very much. Todd's class is going to have a bake sale to raise money for a field trip. Todd has decided to make the peanut butter cookies to sell. Todd and Terri can bake the cookies, but they don't know how to package them. Todd and Terri face these problems in packaging: 1. The cookies are fragile and need to be protected from breaking. 2. The peanut butter and other ingredients can become stale very quickly and need to be protected from the air. 3. The number of cookies in each package must be decided. 4. Todd and Terri want something attractive that will catch the shopper's eye. They know that lots of cookies are available, and they want to make sure that the people will buy their cookies. If you were Todd or Terri, how would you package your cookies?

Lesson 11. Storing Food

An information acquisition lesson designed to help students identify two foods that must be stored at a cool temperature

Objective

After completing this lesson, students should be able to identify foods that must be stored at cool temperatures.

Key Facts

Many foods need to be stored at cool temperatures to retain their freshness and nutritive value. Foods requiring cool temperatures include dairy foods (milk, cheese, ice cream), meat foods (beef, pork, chicken, fish), eggs, and fresh fruits and vegetables.

If a food is stored incorrectly, growth of bacteria, yeast, or mold can occur. Cold temperatures chiefly slow growth, although freezing may stop the growth of some microorganisms. Foods stored in home refrigerators will keep safely for only a few days. Food may be stored safely in freezers for several weeks or months.

Activities: Food Storage

Procedures	*Materials needed*
1. Bring to class a grocery sack. Have the sack full of empty cartons and packages or food pictures (use foods that should be stored in the freezer, refrigerator, and on shelves). Tell the students you have just gone to the store and you need help putting away the groceries. Write the names of the storage areas as column headings on the chalkboard (freezer, refrigerator, shelf). Remove foods from the bag one at a time and ask the students where the food should be stored. After the students have identified the storage location, have them post the food picture or write the name of the food in the appropriate column.	Grocery sack Empty food cartons and packages or pictures of food
2. Explain why some food needs storage at cool temperatures. Have the students name different foods that belong in the refrigerator. Get a few samples of food, such as cheese, lunch meat, ice cream, or milk. Leave a portion of the food in the classroom. Put the remaining food in the refrigerator or freezer, as appropriate. Have the students observe the changes each day for a period of one week, and have them compare the differences they observed in the food's quality.	Food samples
3. Set up a food storage learning center. Have the students place the food pictures in the appropriate card pocket to show where the food should be stored.	"Food Storage Learning Center," pages F-81–F-83 Food pictures (from magazines or Dairy Council)
4. Have the students complete the work sheet "Storing Food."	Work sheet: "Storing Food," page F-84

Evaluation Suggestions

1. Have students complete the work sheet "Food Storage," on page F-85.
2. List the following foods on the chalkboard. Have the students orally tell you which ones should be kept at a cool temperature and which should not. These foods are not cooked.

Milk (CT)*	Lunch meat (CT)	Tortillas (CT)
Canned green beans	Hamburger (CT)	Dried beans
Cheese (CT)	Cornflakes	
Raisins	Canned tuna	
Bacon (CT)	Canned fruit juice	
Rice	Hot dogs (CT)	
Canned tomato soup	Flour	

*(CT means cool temperature.)

Food Service Involvement

Visit the school cafeteria to observe how food is stored. Ask the food service manager to explain why food is stored in certain areas.

Notes

Answer Key:

"Storing Food," page F-84

Freezer: ice cream, ice cream bars
Refrigerator: hamburger, eggs, tortillas, milk, chicken, cheese, carrots, yogurt (oranges, apple—optional)
Counter or cupboard: bananas, rice, bread, can of tomato soup, can of tuna, dried beans, can of peas, box of crackers, powdered milk (oranges, apple—optional)

"Food Storage," page F-85

Cut and paste pictures of milk, hamburger, chicken, eggs, cheese, and tortillas in refrigerator. (Oranges and apple are optional.) Paste picture of ice cream in freezer.

Lesson 12. Identifying Careers in Processing, Preparing, and Serving Food

An information acquisition lesson designed to help students identify two jobs in which people process, prepare, or serve food

Objective

After completing this lesson, students should be able to identify two jobs in which people process, prepare, or serve food and to describe what each job requires.

Key Facts

Many people in the food industry and related fields process, prepare, or serve food. Some people who work in the area of food processing or production include sorters, graders, cannery workers, meat packers, butchers, millers, and bakers. People who work in the technological areas of food processing include sanitarians, food scientists, quality inspectors, microbiologists, nutritionists, and chemists.

People who prepare food are cooks, chefs, and family members. In an institution or a restaurant, the person who prepares food may be either a chef or a cook. After the food is prepared, a waiter or waitress may serve the food. In a school cafeteria a food service worker may serve the food.

Activities: Food Service Occupations

Procedures	*Materials needed*
1. Show pictures of the various persons involved with food service (e.g., school food service manager, cafeteria worker, cook/chef, baker, waiter, waitress, dishwasher). Describe the duties associated with each job. Write the job title on the chalkboard when each job is described. After describing each job, assign a number to it (e.g., school food service manager—1; cook—2; and so forth). Tell the students you will describe a job. When you have read the entire description, have them choose the correct job title and indicate the job number by raising the correct number of fingers.	Pictures of food service workers, pages F-86– F-91 Teacher Reference Sheet: "Food Service Job Descriptions," page 58
2. Have the students draw on butcher paper, in scroll form, a mural of food preparers and servers doing their jobs. Have the students write a sentence about what each person does.	Butcher paper

Activities: Food Processors

Procedures	*Materials needed*
1. Ask the students if anyone knows how peanut butter is made. After the class responds, put 1½ cups (210 g) shelled peanuts in a heavy-duty blender container. Cover and whirl the blender contents until the nuts are finely ground. Add 1½—3 tablespoons (22.5—45 mL) of salad oil, a small amount at a time, and whirl after each addition of oil. Start and stop the blender as necessary and use a spatula to keep the butter in motion. (The nut mixture is thick; so to avoid overtaxing the blender motor, make the peanut butter in small batches.) Add salt to taste; whirl 30 seconds, or until the mixture is very smooth. Makes 1 cup (255 g). Explain to the students that the peanuts have been processed to make peanut butter. Allow the students to taste the peanut butter spread on whole wheat crackers or bread.	1½ cups (210 g) of shelled peanuts 1½—3 tablespoons (22.5—45 mL) oil Heavy-duty blender Salt (optional) Whole wheat crackers or bread

Activities: Food Processors —Continued

Procedures	Materials needed
2. Inform the class that you are going to read them a story that they may have heard before, but they need to listen carefully because you are going to ask them some questions. Ask the students to identify the different processes the wheat went through from the time it was planted until it was eaten.	Story: Berg, Jean H., *The Little Red Hen.* Chicago: Follet Publishing Co., Inc., 1963.
3. Ask the students if they can name other foods that have been processed (e.g., bread, canned foods, frozen foods). Have the class brainstorm the job titles of people who process foods (e.g., sorters, graders, canners, packers, butchers, meat packers, millers, and bakers). Write the job titles on the chalkboard as they are named, and describe what each job entails.	Teacher reference sheet: "Food Processors," page 58

Activities: Food Processing and Preparing Occupations

Procedures	Materials needed
1. Have the class play the "Who Am I?" game. One student chooses a food-related occupation, and other students ask yes or no questions (e.g., Do you raise animals? Do you use a plow? Do you cook?). The student who guesses the correct occupation chooses the next occupation.	
2. Have the students complete the crossword puzzle "Food-Related Careers."	Crossword puzzle: "Food-Related Careers," page F-92

Evaluation Suggestion

Have students complete the work sheet "Matching Career Titles with Job Duties," page F-93.

Food Service Involvement

1. Invite the food service manager to visit the class and describe what is involved in jobs associated with food preparation and service.
2. Arrange with the food service manager for students to visit the cafeteria and to observe food preparation.
3. Ask the food service manager to display the food service occupations mural in the school's eating area.

Notes

Answer Key:

"Food-Related Careers" puzzle, page F-92
Across: 1. baker, 2. farmer, 3. processor,
Down: 1. butcher, 2. rancher, 3. dairyman, 6. trucker 7. grocer, 8. miller

"Matching Career Titles with Job Duties," page F-93
1. C, 2. A, 3. B, 4.D
5. C, 6. D, 7. B, 8. A
9. D, 10. A, 11. B, 12. C

Food Service Job Descriptions
(Teacher Reference Sheet)

1. Chef/Cook: Prepares food in a restaurant, cafeteria, cafe, school food service operation, hospital, and so forth. The job titles are sometimes used interchangeably; however, a chef usually has special training to prepare elaborate foods in special restaurants.
2. School Food Service Manager: Supervises, prepares, and serves food; orders supplies and food for kitchen; directs other food service workers; and has charge of lunch money.
3. Cafeteria Worker: Helps prepare food, serve food, and clean up kitchen. In schools, students often help serve and sell food, clean tables, and wash dishes.
4. Baker: Uses flour made from various grains and other ingredients to make bread, rolls, crackers, and other baked products.
5. Waiter: A man who serves customers food in a restaurant or other eating establishment.
6. Waitress: A woman who serves customers food in a restaurant or other eating establishment.
7. Dishwasher: Washes dishes in a restaurant, cafeteria, or other eating establishment.

Food Processors
(Teacher Reference Sheet)

1. Baker: Uses flour and other ingredients to make baked products, such as bread, rolls, buns, muffins, crackers, cookies, cakes, and pies.
2. Butcher: Cuts large pieces of meat, such as beef, lamb, pork, or poultry, into smaller pieces, such as roasts and chops.
3. Cannery worker: Processes foods like tomatoes or peaches to preserve them by sealing them in jars or cans. Cannery workers include *sorters* who separate the good food from the spoiled; *graders* who separate food according to its size and shape; and *canners* who seal the food in the jars or cans.
4. Meat packer: Packages the cut pieces of meat in plastic or paper wrap so that they are ready for the customer to buy.
5. Miller: Buys grain from farmers and runs it through machines which remove the hulls from the grain. Some grain, such as white rice, has the bran removed; and some grain, wheat, for example, is ground into flour.
6. Packer: Puts food into boxes or other containers so it is ready for the customer to buy.

Grade Three Nutrition Lessons

The nutrition education lessons for students in grade three were designed as a resource for administrators, teachers, school food service employees, and others who wish to offer instruction about food choices, factors influencing food choices, food-related careers, consumer competencies, and food handling. The lessons and activities can be used in their entirety or selectively.

Each lesson activity provides a complete and detailed description of the procedures and a list of required instructional materials.

Lesson 1. Identifying Personal Energy Needs

An information acquisition lesson designed to help students identify one activity which requires less energy (from food) and one activity which requires more energy (from food)

Objective

After completing this lesson, students should be able to distinguish activities which use more energy from those which use less energy.

Key Facts

The body requires energy from food to be active, to form new tissues during growth, to heat the body, and to repair tissue after injury. Activities that require vigorous movement of the body use more energy than those that involve slow or no movement. Some activities that use more or large amounts of energy are walking, running, jumping, playing soccer or other sports, or mowing the lawn. Some activities that use little energy include reading, watching TV, sitting in class, or sleeping.

All energy used in the body comes from the burning of energy-yielding food or body fat. People who fail to eat enough food to provide the amount of energy their bodies need will lose weight because they must burn up some body tissue. If one eats more food than necessary, the excess food is stored in the body as fat and a gain in weight occurs. Therefore, an individual's activity must match his or her food intake if the person is to maintain a certain weight.

Activities: Energy Needs

Procedures	*Materials needed*
1. Inform the students that they will be learning more about food and energy by participating in an experiment. Divide the class into two groups. Take them to the playground. Have Group A sit quietly and watch while Group B runs to the other end of the playground and back. Return to the classroom. Ask the students which group used more energy. Why do they think it takes more energy to run than to sit? Lead them to conclude that the more active a person is, the more energy is used. The less active a person is, the less energy is used.	
2. Use the work sheet "Energy" as a transparency to review activities that require more energy from food and those that require less.	Work sheet: "Energy," page F-94
3. Using activity word cards, ask a student to pick a card from the stack and pantomime the activity. Other students can guess the activity and tell if it uses a small or a large amount of energy. Continue until all the cards have been used.	"Activity Word Cards," page F-95
4. Place the headings "Active" and "Less Active" on the chalkboard. Ask the students to name some activities and write them under the correct heading.	

Evaluation Suggestions

1. Have students complete the work sheet "How Much Energy?" on page F-96. Check to see that students have circled those activities that require the *most* energy.
2. After the students have completed the work sheet, have them fold the paper in half. On the back of the paper, have them write the headings "Active" and "Less Active" at the top of each half. Have them list things they like to do that fit under each heading. Check to see that students have the correct activities under each heading.

Notes

Answer Key:

"Energy," page F-94

1. Running, mowing lawn
2. Sitting at desk, reading

"How Much Energy?" page F-96

1. Running
2. Sweeping floor
3. Jumping rope
4. Riding a bike
5. Swimming
6. Skate boarding
7. Walking to school
8. Playing in a baseball game
9. Jogging a mile
10. Mowing the lawn

1. Jumping rope
2. Swimming
3. Jogging
4. Running
5. Riding a bike

Lesson 2. Discussing Overeating and Overweight

An open-ended discussion lesson through which students have an opportunity to share ideas, opinions, and feelings about overeating and being overweight

Procedures	*Materials needed*
Discussion Sequence 1. Inform the students that the purpose of this lesson is to give them a chance to share their feelings about a very sad turtle that is overweight. 2. Ask the students to listen closely to the story you are going to read and try to find some ways they can help Freddie. 3. Read the story. 4. Present the discussion rules outlined in Chapter One, page 4. 5. Restate the discussion question: What would you do if you were Freddie? 6. Conduct the discussion.	**Freddie's Tight Shell** Freddie was a turtle that liked to eat. His mother always fixed him a good breakfast, which consisted of a glass of juice, one egg, a glass of milk, and toast or cereal. Freddie would finish it all and have three more slices of toast with another glass of milk. For lunch, he would eat all of his own lunch from the cafeteria and anything else his friends did not want to eat. Freddie liked to have a good snack after he got home from school. He usually had a peanut butter sandwich with a glass of milk. Mrs. Turtle tried to serve her family a good dinner every night. Since Freddie liked to eat, he would have two helpings of everything. Freddie would feel so full after eating that he could not run or play with his friends. When the other turtles would play games, Freddie would just sit on the side and say, "This game is dumb." Secretly, he wanted to play, but he felt funny because he was so fat. Watching the others having a good time without him made Freddie feel so bad that he would eat even *more* to try to make himself feel better. His shell was getting very tight, and it was hard for him to tie his shoelaces in the morning. The more unhappy Freddie was, the more food he ate. What would you do if you were Freddie?

Lesson 3. Identifying the School Lunch Pattern

An information acquisition lesson designed to help students identify the food groups that are included in the school lunch pattern

Objective

After completing this lesson, students should be able to identify the food groups required in the school lunch pattern.

Key Facts

The school lunch pattern from the National School Lunch Program (USDA) requires:

USDA recommends, but does not require, that you adjust portions by age/grade group to better meet the food and nutritional needs of children according to their ages. If you adjust portions, Groups I—IV are minimum requirements for the age/grade groups specified. If you do not adjust portions, the Group IV portions are the portions to serve all children:

Components		Grades K—3 ages 5—8 (Group III)	Grades 4—12 age 9 & over (Group IV)	Specific Requirements
Meat or Meat Alternate	A serving of one of the following or a combination to give an equivalent quantity			• Must be served in the main dish or the main dish and one other menu item. • Textured vegetable protein products, cheese alternate products, and enriched macaroni with fortified protein may be used to meet part of the meat/meat alternate requirement. Fact sheets on each of these alternate foods give detailed instructions for use. NOTE: The amount you must serve of a single meat alternate may seem too large for the particular age group you are serving. To make the quantity of the meat alternate more reasonable, use a smaller amount to meet part of the requirement and supplement with another meat or meat alternate in another part of the meal to meet the full requirement.
	Lean meat, poultry, or fish (edible portion as served)	1½ oz (42 g)	2 oz (56 g)	
	Cheese	1½ oz (42 g)	2 oz (56 g)	
	Large egg	1	1	
	Cooked dried beans or peas	½ cup (110 g)	½ cup (110 g)	
	Peanut butter	3 Tbsp (48 g)	4 Tbsp (64 g)	
Vegetable and/or Fruit	Two or more servings of vegetables or fruit or both to total	½ cup (110 g)	¾ cup (165 g)	• No more than one-half of the total requirement may be met with full-strength fruit or vegetable juice. • Cooked dry beans or peas may be used as a meat alternate or as a vegetable but not as both in the same meal.
Bread or Bread Alternate	Servings of bread or bread alternate A serving is: • 1 slice of whole grain or enriched bread • A whole grain or enriched biscuit, roll, muffin, etc. • ½ cup of cooked whole grain or enriched rice, macaroni, noodles, whole grain or enriched pasta products, or other cereal grains, such as bulgur or corn grits • A combination of any of the above	8 per week	8 per week	• At least ½ serving of bread or an equivalent quantity of bread alternate for Group I, and 1 serving for Groups II—V, must be served daily. • Enriched macaroni with fortified protein may be used as a meat alternate or as a bread alternate but not as both in the same meal. NOTE: *Food Buying Guide for School Food Service*, PA-1257 (1980) provides the information for the minimum weight of a serving.
Milk	A serving of fluid milk	½ pint (8 fl oz) (240 mL)	½ pint (8 fl oz) (240 mL)	At least one of the following forms of milk must be offered: • Unflavored lowfat milk • Unflavored skim milk • Unflavored buttermilk NOTE: This requirement does not prohibit offering other milks, such as whole milk or flavored milk, along with one or more of the above.

These requirements are based on the daily dietary needs of a child ten to twelve years old. The meal is intended to supply one-third of the child's daily recommended dietary allowance.

As an option, portion sizes may be smaller for children enrolled up to grade three—up to 25 percent less than the portions required for children enrolled in grades four and above.

Activities: The School Lunch Pattern

Procedures	Materials needed
NOTE: This lesson requires knowledge of the Basic Four food groups. A review of the four groups and representative foods in each group is appropriate.	Review pages 12—13 in *Nutrition Education—Choose Well, Be Well—A Resource Manual for Preschool, Kindergarten, and Elementary Teachers* and pages 34 and 39 in this guide.
1. Discuss the importance of the school lunch program. Display and discuss a miniposter "Why Eat in the Cafeteria?" The students may wish to write their own poems related to the importance of good nutrition or why they should eat in the cafeteria.	Miniposter Master: "Why Eat in the Cafeteria?" page F-97
2. After lunch, ask the students to name foods that were served on the school lunch menu. Ask them to classify foods on the menu according to the Basic Four food groups. Inform them that these four groups are in the school lunch every day. Use the chart "School Lunch Pattern" as a transparency to illustrate how a school lunch contains the Basic Four food groups.	Chart: "School Lunch Pattern," page F-98
3. Write "School Lunch Pattern" on the chalkboard and distribute the handout "School Lunch Pattern Every Day." Describe the menu requirements and explain why school lunch programs must conform with them (e.g., to meet the food and nutritional needs of children, to be eligible for reimbursement from the government). Explain that the school lunch pattern is a minimum requirement and that other foods can be added.	Handout: "School Lunch Pattern Every Day," page F-99
4. Obtain from the food service director enough copies of the school's monthly lunch menus for each student. Distribute the menus to the students and ask them to match the menu items to the school lunch pattern food groups. Write on the board the names of these food groups (e.g., milk, meat or meat alternate, fruit and vegetable, and bread or bread alternate). Ask for volunteers to write menu items under the appropriate food groups listed on the board. Have the students determine whether the menu meets the pattern requirements.	School's lunch menus
5. Distribute the "Plan a Lunch" work sheet to the students. Have them plan a school lunch menu individually or in small groups. Have the class exchange the menus for discussion and review. Ask the food service director whether one of the student's planned lunches could be served at the school or be included in the district's lunch menu.	Work sheet: "Plan a Lunch," page F-100

Evaluation Suggestion

Have students complete the work sheet "On Your Way to Good Nutrition," page F-101.

Food Service Involvement

1. Invite the food service manager to conduct this lesson.
2. Ask the food service director to include information about the school lunch pattern on the back of the district's lunch menu that is sent home.

Notes

Answer Key:

"On Your Way to Good Nutrition," page F-101
Put an *X* numbers 1, 2, 4, 6, 8, 9, and 10.

Lesson 4. Recognizing Family Differences in Selecting and Serving Food

An information acquisition lesson designed to help students recognize that families have different ways of selecting and serving food

Objective

After completing this lesson, students should be able to identify foods eaten by people from different cultures.

Key Facts

All people have the same basic needs for food. These needs are met in various ways with different foods.

Families serve foods in diverse ways, such as family style, buffet, or picnic style. How they serve food may be a result of their cultural background. For instance, in Nicaragua there is no snacking; food is eaten only during meals. In Japan, food is served in many plates and bowls of various sizes.

Families also have different ways of selecting foods. If both parents work and their children are small, they may buy more convenience foods because they take less time to prepare. Families with a parent at home to cook often select foods which require more preparation and longer cooking times.

Cultural background may also affect food selection. An Italian family may use more tomatoes and kinds of pasta compared with a Mexican family, which might use more cornmeal.

Most cultures have foods which can be classified according to one of the Basic Four food groups. (See the chart on page 66.) In Oriental cultures little or no milk products are consumed, but tofu (soy bean curd) and various green vegetables are eaten. These foods are high in calcium and help to provide this important nutrient which milk and milk products contain.

Activities: Family Differences in Selecting and Serving Food

Procedures	*Materials needed*
1. Display four pictures of culturally and/or ethnically different families (e.g., Jewish, Afro-American, Asian, and Mexican). Discuss with students similarities and differences in the pictures (utensils, foods, and so forth).	Pictures of different ethnic family groups, pages F-102–F-105
2. Discuss the four food groups—foods everyone needs every day for good health. Show ethnic pictures one at a time and ask, "Which food groups do you think this family needs every day?" Identify the ethnic foods in each of the four food groups that each ethnic group eats. Have students complete the work sheet "Four Food Groups—Ethnic Style."	"Basic Four Ethnic Food Guide for Teachers," page 66 "Ethnic Food Glossary," page 67 Work sheet: "Four Food Groups—Ethnic Style," page F-106
3. After completing the discussion about each ethnic group, draw a chart outline on the chalkboard similar to the "Basic Four Ethnic Food Guide for Teachers." Ask students to name ethnic foods from group discussions. Write the food in the correct box on the chart, as indicated by the student.	
4. Prepare and taste at least one ethnic food from one culture, or prepare and taste several different ethnic foods from the same food group (bagels, rice, tortillas). Ask a parent to demonstrate preparing an ethnic food. Send a letter home describing a cultural food experience.	"How to Make a Tortilla," page F-107

Evaluation Suggestions

1. Name an ethnic food or foods. Have the students identify which family typically eats that food.
2. Show the ethnic family pictures on pages F-102–F-105, one at a time. Ask the class to identify orally the ethnic foods the family would eat.

Food Service Involvement

Have a day each month when food common to a certain culture is featured in the school lunch. Ask the food service manager to describe the ingredients in the menu and/or the food groups selected. (*NOTE:* Food service personnel need to know at least one month in advance of the event for menu planning purposes.)

Notes

Answer Key

"Four Food Groups—Ethnic Style," page F-106

Isaac: 1, 2, 4, 3
Kim: 4, 2, 1, 3
Maria: 4, 3, 2, 1
Kenya: 2, 1, 4, 3

Basic Four Ethnic Food Guide for Teachers

	Meat, Poultry, Fish, and Beans Group	*Fruit and Vegetable Group*	*Bread and Cereal Group*	*Milk and Cheese Group*
Jewish	Lox Gefilte fish Beef Poultry	Common fruits and vegetables	Bagels Matzo Challah	Milk products, all kinds
Afro-American	Ribs Ham Black-eyed peas	Okra Greens (mustard, collard) Sweet potato	Cornbread Grits	Buttermilk (also calcium from green vegetables)
Asian	Fish Bean cake (tofu) Pork Beef Eggs	Bok choy Bean sprouts Pea pods Mandarin oranges Green vegetables	Rice Noodles Wonton	Very little milk (calcium from bean cakes [tofu] and green vegetables)
Mexican	Beef Beans Pork Chicken Eggs	Bananas (Plantains) Melons Avocados Tomatoes Bell peppers	Tortillas (corn and flour) Rice	Custard (flan) Cheese Milk

Ethnic Food Glossary

This is a guide to the various cultural foods mentioned on the chart "Basic Four Ethnic Food Guide for Teachers," page 66.

Bean cake or Tofu (soybean curd): This soft, white, cheese-like food is made from soybeans and is very high in protein, but has no distinct flavor. Bean cake, often used in Oriental dishes, such as soups, salads, and stir-fried vegetables, is also called tofu, or dowfoo.

Bean sprouts: Mung or soybeans are sprouted and eaten raw or cooked in Oriental dishes.

Bok choy: This leafy green vegetable from the cabbage family is used in Oriental dishes.

Challah (Hallah): This braided egg bread with poppy seeds on top is traditionally served at Jewish celebrations.

Gefilte fish: This is a Jewish dish which is a mixture of cooked flaked fish, bread crumbs, eggs, and seasonings that is often formed into oblong shapes, or it may be prepared as balls and boiled in a fish stock.

Grits: This is white or yellow corn from which the bran and germ have been removed and which is often cooked and served as a cereal or as an accompaniment to breakfast in place of hash browns. Grits are more coarsely ground than corn meal.

Lox: Smoked salmon is a traditional Jewish food.

Matzo: This unleavened bread, which is similar to a cracker, is a traditional Jewish food.

Wonton: These small squares of wheat dough are folded and filled with vegetables and meat. Similar to the Italian ravioli, wonton may be served either fried or boiled in a soup.

Lesson 5. Trying Unusual Foods

An open-ended discussion lesson through which students have an opportunity to share ideas, opinions, and feelings about trying unusual foods

Procedures	*Materials needed*
Discussion Sequence 1. Inform the students that the purpose of the lesson is to give them a chance to share their ideas about trying unusual foods. 2. Tell the students that in a few minutes you are going to tell them a story abut a boy named Ken who is faced with a problem. 3. Explain that the story is about a food from France, and show the students where France is on a map or globe. 4. Explain that after you read the story, you are going to ask them to make suggestions through a discussion about what they think this boy should do. 5. Read the story "Ken Visits Pierre." 6. Present the discussion rules outlined in Chapter One, page 4. 7. Present the discussion question: What would you do if you were Ken? 8. Conduct the discussion.	**Ken Visits Pierre** Pierre came running down the sidewalk to meet Ken and to help him carry his suitcase and sleeping bag. No, Ken was not running away from home. His parents were leaving tomorrow morning for a weekend trip, and arrangements had been made for Ken to spend the weekend with his best friend Pierre. The two boys had been the best of friends since school started in September. This was right after Pierre had moved into the neighborhood from France. Before coming to the United States, Pierre had lived only in France, and he did not know anyone or have any friends when he first moved into town. But Ken, who had lots of friends, took care of that problem. When their teacher, Mrs. Clark, sat the boys next to each other in class, they became great friends. Pierre quickly learned a lot about life in the United States from Ken, and Ken learned a great deal from Pierre about France. Ken and Pierre began to do almost everything together. During school, they would always work together on the same group project, help each other with their homework, spend recess together, pick each other to be on their team, and eat their lunches together. Ken sometimes noticed that Pierre would have in his lunch some kinds of food he had never seen before. But Ken did not give it a lot of thought because they were busy talking about the baseball

Procedures	Materials needed
	game they would start up after school. This weekend they had planned to do a lot of things, including playing baseball with their other friends down at the park. But first they had to wash up for dinner. Pierre told Ken that his mother was fixing something special for their dinner. Ken got excited as he began to wonder whether it would be hamburgers, hot dogs, or maybe, barbecued steaks. When the whole family sat down at the table and the food was about to be served, Pierre's mother told Ken that they were having escargot for dinner. She explained that *escargot* was French for snails and was a special treat in France. "Snails!" Ken thought. "Is this the special treat for dinner?" He had never eaten snails before. He had stepped on a few in his garden, but he had never eaten any. What was he going to do? He was not very excited about eating them, but he did not want to hurt the feelings of Pierre and his family. They thought escargot was special and probably had prepared the snails in his honor. He did not know what to do as his plate of snails was passed to him. What would you do if you were Ken?

Lesson 6. Selecting Foods

A values awareness lesson in which students explore their values about selecting foods

Procedures	Materials needed
Activity Sequence 1. Inform the students that the purpose of this lesson is to help them become aware of some of their values about foods which affect their food choices. 2. Ask the students to think back to their breakfast or to their dinner last night and list the foods they ate. Explain that their list will be only for their use. They should include everything they ate or drank as part of the meal. 3. Ask the students to look at their own lists and try to figure out why the person who prepared the food selected those particular foods for that meal. To demonstrate what you mean, ask one of the students to report one food he or she listed; then invite the entire class to try to guess why that food might have been chosen by the person who prepared the food. (Milk: It has much nutritional value; it contains calcium to help build strong teeth and bones; it tastes good; it is always served at mealtimes; it is readily available.) As the students respond, look for and reinforce reasons, such as taste, smell, color, texture, nutritional value, ease of preparation, time of day, cost, and so forth. 4. Emphasize that each time we have the opportunity to choose food for ourselves, we usually have some reasons for selecting those particular foods. 5. Indicate that the reasons most people have for selecting the food they eat or prepare for others often include the following: taste, smell, color, texture, nutritional value, ease of preparation, time of day, trying something new, or cost. a. Review each of these reasons for food choices and explain or give examples, as appropriate. Write each of these reasons for selecting foods on the chalkboard under the heading "Reasons for Selecting." b. Ask the students if they have other reasons for selecting the food they eat. If appropriate, add these reasons to the list on the board. (No more than three or four should be added, or the list will become too lengthy for the activity which follows.) c. When the discussion about reasons for selecting foods has just about concluded, also add the following: "Parent's or Guardian's Advice" and "Friend's Choices." Point out that we may also choose some of the food we eat because our parents have told us it is good for us (nutritional value) or because one of our friends eats the food. 6. Distribute the work sheet "Reasons for Selecting Foods" to each student. Point out that the words listed in the left column are the same as those you wrote on the board and discussed. Ask the students to add any words to their papers that you added to the list on the chalkboard. Give other examples, as appropriate, for your students.	Work sheet: "Reasons for Selecting Foods," page F-108

Procedures	Materials needed
7. Direct the students' attention to the columns "Very Important," "Important," and "Not Important." Inform the class that you now want them to select one of the foods that they listed on their paper. They are going to rate that food on the "Reasons for Selecting" work sheet. Have them write the name of their food choice in the box at the bottom of the page. Begin with the first reason, taste. Ask the students to circle the number 1 *only* if they chose the food because the taste was very important to them. 8. Continue rating the other reasons for choosing in the same manner by having the students circle the appropriate number. Note that they may circle more than one of the reasons as very important. 9. After the students have rated their reasons for selecting the food, ask them to circle the reasons that they rated as number 1, or Very Important. 10. Invite the students who wish to do so to state which foods they selected and to share their reasons for choosing the ones they rated very important. As various students report, you may make the point that some people may have the same reasons for choosing, or some may have different reasons. Even in those instances in which two or more students have selected the same food, their reasons for choosing may be different, or they may be the same. 11. Next, tell the students to cross out the words *reasons for* at the top of the column and write the words *values about* in their place. Change the heading on the chalkboard in the same manner. Point out that the list of reasons for choosing food that they rated as very important (and which they have circled) is really a list of some of their values about foods. (You may also explain that they undoubtedly have other food-choice values that are not listed on the paper.) 12. Write the following sentence on the chalkbaord: One of my values about food is its _____. Read the sentence to the students and add one of your values about choosing food as an illustration of what you want them to do. 13. Ask several students, one at a time, to volunteer to read aloud the sentence and to insert one of their values about food in the blank. Remind them that their values are those reasons for choosing that they rated as number 1, or Very Important. 14. Conclude the activity with the statement, "When we talk about food, some people will have the same values and some will have different ones." Explain that what usually makes a choice difficult is we have more than one value about food. We may like the taste of a certain food, for example, but the nutritional value may be very low. Another food may not taste as good, but its nutritional value may be much higher; therefore, people may choose the not-as-good tasting food instead of the food that just tastes good.	

Lesson 7. Preparing Food

An information acquisition lesson designed to help students identify two ways of cooking food

Objective

After completing this lesson, the students should be able to state two ways of preparing and cooking food.

Key Facts

There are a number of ways to cook food: bake, fry, stir-fry, boil, steam, roast, stew, barbeque, broil, microwave, pressure cook, braise, and grill.

Vegetables are prepared for eating by washing, peeling, slicing, and cooking them in various ways. (Peeling is not necessary for most vegetables.) Two ways of cooking vegetables that best retain their nutrients are steaming and stir-frying.

Activities: Food Preparation

Procedures	*Materials needed*
1. Ask students to name ways that food is prepared for eating (raw or cooked). Ask them to identify different ways foods are cooked (in water, in the oven, and so forth).	
2. Discuss why food is cooked (to make it taste better, to make it easier to eat, to make it safe to eat). Brainstorm with students specific ways of cooking food: bake, fry, stir-fry, steam, boil, roast, stew, barbeque, broil, microwave, pressure cook, braise, and grill.	
3. Bring to class some raw vegetables that can be cooked easily (e.g., carrots, green beans, zucchini). Show the vegetable in its raw state. Review the preparation steps. Cut part of the vegetable into small portions so that each student can taste it raw. Of the remaining vegetable, steam half of it and bake the other half. (Perhaps the food service personnel can prepare the cooked vegetables if cooking facilities are not available in the classroom.) Have the students taste the raw and cooked vegetables and compare the textures and taste. *Note:* This lesson is greatly facilitated if parental help is available to conduct the activity.	Raw vegetables Steamer Heating unit Frypan Toaster-oven
4. Review the stir-fry method with the students. Stir-fry some vegetables and have the class sample them.	Handout: "Stir-Frying," page F-109
5. Have students complete the hidden word game "Cooking Magic," which identifies ways of cooking food.	Work sheet: "Cooking Magic," page F-110

Evaluation Suggestions

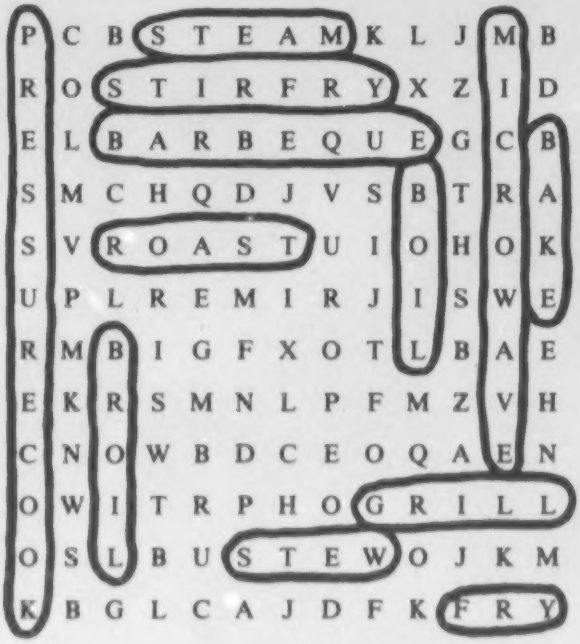
1. During the stir-fry demonstration ask students to name orally additional ways in which foods can be cooked.
2. Have the students complete the work sheet "Preparing Food," page F-111. Determine whether students have listed correctly the sequence of steps involved in preparing and eating vegetables.

Food Service Involvement

1. Invite the food service manager to discuss some menu items which can be served raw or cooked.
2. Ask the food service manager to discuss the methods of cooking used to prepare vegetables in the cafeteria.
3. Arrange for students to visit the cafeteria to watch the preparation of the school lunch.

Notes

Answer Key:
"Cooking Magic," page F-110


P C B S T E A M K L J M B
R O S T I R F R Y X Z I D
E L B A R B E Q U E G C B
S M C H Q D J V S B T R A
S V R O A S T U I O H O K
U P L R E M I R J I S W E
R M B I G F X O T L B A E
E K R S M N L P F M Z V H
C N O W B D C E O Q A E N
O W I T R P H O G R I L L
O S L B U S T E W O J K M
K B G L C A J D F K F R Y

Find the hidden words:

Bake	Stir-fry	Stew
Barbeque	Grill	Boil
Pressure cook	Steam	Broil
Fry	Roast	Microwave

NOTE: The words may be spelled up and down or sideways.

"Preparing Food," page F-111

A. 1. wash, 2. peel, 3. cut, 4. cook, 5. eat
B. The following are two ways of cooking a carrot: 1. steaming; and 2. stir-frying

Lesson 8. Exploring Preferences in Fruit Preparation

A values awareness lesson in which students explore their values about different preparations of a specific fruit

Procedures	*Materials needed*
Activity Sequence 1. Review with the students what is meant by preparing fruit for eating (many students have eaten only whole fruit). Ask them to recall different ways they have eaten a common fruit. (Do not discuss apples since they will be explored in this lesson.) As the students comment, use the words *whole fruit, sliced fruit, dried fruit, cooked fruit,* and/or *the fruit as a juice.* 2. Inform the students that the purpose of this lesson is to help them become aware of some of their values (or what they like) about how fruit is prepared for eating. Comment that for them to become aware of their own values about how fruit is prepared for eating, they will have a chance to taste apples prepared in different ways. The five ways apples have been prepared for them are as follows: (1) juice; (2) cooked; (3) dried; (4) sliced and peeled; and (5) halved. As you mention these five ways of preparing fruit, write the words across the top of the chalkboard as column headings. 3. Tell the students that you are going to give each person some apples prepared in these five ways. Ask them not to begin tasting until you tell them to do so. 4. Distribute the food to the students. 5. Tell the students that they are going to be tasting the apple prepared in these different ways so that they can decide which ways they prefer. Since they will all be sampling the same food at the same time (all tasting the juice, then the applesauce, and so on), they should not try a food until you tell them to do so. Also, as they sample the food, they should not eat it all, but rather take just enough to get the flavor, texture, and aroma. In that way, they will have some left to taste again later on if they wish to compare two ways of preparing a food to decide which they like better. 6. Ask the students to sample each of the ways the apple has been prepared, one method at a time, and tell them that you will be asking them which of these ways they liked best and why. 7. After the students have sampled the food, ask them to hold up their hands if they prefer the apple prepared as juice. Write the students' names down on the chalkboard under the heading "juice." Continue in the same manner, reviewing the other ways the food has been prepared for the lesson. Note that they may prefer the apple served in more than one of the ways listed on the board, and that is all right. 8. After you have reviewed all five ways the apple has been prepared, go back to the first column and ask the students whose names are listed to answer the question: What is there about having the fruit served to you in this manner that you like? Point out that as they respond, they may not use words such as *good, nice,* or others that mean the same thing. (These are judgmental, not descriptive, words about why they liked the way the fruit was prepared. If students say	Have enough of the following foods prepared for each student: 1. Apple juice 2. Applesauce (Tongue depressors may be used as spoons or plastic spoons may be used.) 3. Dried apples 4. Sliced apples with the peel and seeds removed 5. Apple halves with the skin and seeds intact Half sheet of paper Napkins (You may want to invite the cafeteria manager, students, and/or parents to help supply and prepare the food items and other supplies needed for this food experience. These people may also be able to supply small paper tasting cups, such as those used in restaurants for tartar sauce.)

Procedures	Materials needed
that the fruit is good, ask them what there is about fruit prepared that way that makes them like it. This teacher response may help the student find a descriptive word that can be listed on the chalkboard.) Students may need some help in finding appropriate descriptive words. Look for words, such as *chewy, sweet, sour, crisp, fresh, good tart taste, easier, or more convenient to eat, skinned, no seeds,* and so forth. In the appropriate columns, list the reasons the students report. The reasons should not be grouped according to the students' names, but rather just listed to represent a composite list of descriptive words. 9. After the list of descriptive words has been completed for the five ways the apple was prepared, point out that the students have listed some of their values about ways fruit is prepared for serving. Then write the following sentence on the chalkboard: One of my values about the way fruit is prepared is that it is _____. Read the sentence to the students; then ask them to write the sentence on their pieces of paper. 10. After the students have written the sentence on their pieces of paper, invite them to refer to the chalkboard and fill in the blank with one or two of their descriptive words. Illustrate this by completing the blank with one or two of your values about the way the fruit is prepared for serving, such as: One of my values about the way fruit is prepared is that it is *chewy*. 11. Invite some of the students to read their value statements about the way fruit is prepared for serving. If you wish to do so, you can make a sort of game out of this reporting. When a student reports his or her value about the way fruit is prepared, invite the class members to see if they can guess which way of preparing the fruit the student prefers. The student can then tell them if they are right or wrong. An advantage of this game is that it intuitively introduces the notion that people's values about food preparation help them choose the foods they eat. 12. Conclude the activity by pointing out that some people may like fruit prepared in various ways and that some people may have different values about the way fruit is prepared. Conversely, lots of people like fruit prepared in the same way; they have the same values about the way fruit is prepared.	

Values Application

As a follow-up to this values awareness lesson and to reinforce values about how fruit is prepared for serving, you may invite the students to share ways other fruit is prepared and what their values are about those methods. As a result of this follow-up activity, you have the opportunity to make the point that while a person may have one value about the way one fruit is prepared—e.g., apples should be crisp—he or she may have a different value about the way another fruit is prepared—e.g., bananas should be soft and mushy.

Lesson 9. Washing Hands

An open-ended discussion lesson through which students have an opportunity to share ideas, opinions, and feelings about handling food without washing their hands first

Procedures	*Materials needed*
Discussion Sequence 1. Inform the students that the purpose of this lesson is to exchange opinions and ideas about not washing hands before eating. 2. Tell the students you will read them a "Dear Abby" letter. They will be asked to give their ideas about solving this problem later. 3. Read the letter from Michelle. 4. Present the discussion rules outlined in Chapter One, page 4. 5. Restate the discussion question: What would you do if this were your problem? 6. Conduct the discussion.	**Letter from Michelle** Dear Boys and Girls, I have a problem that I hope you can help me solve. Mom and Dad taught me to always wash my hands before eating or working in the kitchen. This year our classmates go straight from the playground to lunch without washing their hands. Most of my friends and I bring bag lunches to school. Sometimes my friends want to share some special food with me. I'm afraid to eat the foods my friends have handled with their dirty hands, but I don't want to hurt their feelings by saying no. What should I do? Signed, Michelle What would you do if this were your problem?

Lesson 10. Recognizing the Main Ingredient on a Label

An information acquisition lesson designed to help students recognize the main ingredient in a food product as indicated on the label

Objective

After completing this lesson, the students should be able to identify the main ingredient of a food product from the list of ingredients on its label.

Key Facts

An "ingredient" is something which is contained in a product. The main ingredient comes first in the list of ingredients on the label. In California all food labels, except those for fluid milk and ice cream, must contain lists of ingredients.

The purpose of a food label is to help consumers know the contents of the food they buy and to make better food purchases. Consumers can use food labels to compare the ingredients in the package with the ingredients in the recipe for the same food that they make at home.

Activities: Food Labels

Procedures	*Materials needed*
1. Use a canned fruit or vegetable as a visual aid. Ask the students what is in the can. How do they know? (from the label) What else does the label tell the consumer? Point out to the students the ingredient information listed on the label. List the ingredients on the board. Show the students that the first ingredient on the label is the major ingredient in the product. Using a popular cereal that has the first ingredient listed as sugar, ask the students to look at the label and tell you what the major ingredient is. Discuss the significance of sugar being listed first. As a follow-up, students could be allowed to eat the canned fruit or vegetable or make a fruit or vegetable salad.	One canned fruit or vegetable One box of children's cereal with sugar listed as the first ingredient
2. Ask students to bring to class an empty cereal box from home. Display the boxes around the room for students to examine. (Use only one box of each kind of breakfast cereal.) Have the students complete the "Label Detective" work sheet.	Empty cereal boxes Work sheet: "Label Detective," page F-112
3. Assemble some pancake ingredients; then measure and display them. Be sure the class observes how all the ingredients are measured. List the ingredients on the board. Ask the students to arrange the premeasured ingredients in the order they would appear on a label for pancake mix.	
Distribute and review with the class the work sheet "Which Is the Main Ingredient?" If necessary, review the ingredients needed to make pancakes. Begin with the first one. (*NOTE:* The students do not need to conceptualize the ingredient amounts if the ingredients are premeasured and on display.) Read the problem on the work sheet, and have the students place their answers on the sheet. Ask them to share their answers, and then do an example on the board. Have the students complete problem 2. Compare the work sheet labels with the ingredients on a carton of pancake mix. As a follow-up activity, prepare some pancakes and top them with applesauce. Distribute the "Student Recipe Sheet" on page F-114.	Premeasured pancake ingredients Work sheet: "Which Is the Main Ingredient?" page F-113 Box of pancake mix "Student Recipe Sheet," page F-114 Pancake ingredients Applesauce Griddle

Evaluation Suggestions

1. Have the students examine a specific food product and identify its main ingredient.
2. Have the students bring a label from a favorite food and share what they learned about their food product.
3. Have the students visit a local market and compare the labels on familiar food products for main ingredients.

Food Service Involvement

Ask the food service workers to provide a bulletin board display of empty food containers that have their ingredients circled.

Notes

Answer Key:

"Which Is the Main Ingredient?" page F-113

1. no, flour, sugar
2. flour, milk, eggs, oil, baking powder, sugar

Lesson 11. Discovering Influences on Cereal Choices

An open-ended discussion lesson through which the students have an opportunity to share ideas, opinions, and feelings about box design, taste, or ingredients that influence their choices of cereals

Procedures	*Materials needed*
Discussion Sequence 1. Inform the students that the purpose of this lesson is to allow them to share some of their opinions and ideas about the design of and information on cereal boxes. 2. Ask the students to bring in empty cereal boxes. 3. Place the three signs on the table or counter so that the cereal boxes may be placed behind them. 4. Place one of the cereal boxes behind one of the signs. Tell the students that you think it belongs in that particular category, although someone else might put it in one of the other two. Explain that each person has a right to his or her opinion about where the box belongs, that there is no right or wrong placement. (Skip this demonstration procedure if you feel the children will try to please you rather than express their true feelings.) 5. Ask the students to volunteer to place the remaining cereal boxes in one of the three categories. Have them tell why they chose to put them where they did. 6. After all the boxes have been categorized, ask the class the following questions: a. What characteristics do all the cereal boxes have in common (size, colors, pictures, prizes, and so forth)? b. Do all the cereal boxes have a list of ingredients on them? Is the information in the same location on all the boxes? c. How much did the *design* of the cereal box have to do with the category where the box was placed? d. How much did the *taste* of the cereal have to do with the category where the box was placed? e. How much did the *list of ingredients* on the cereal box have to do with the category where the box was placed? (*NOTE:* It may be necessary to read the ingredient names to the students and to explain that some cereals have ingredients, such as BHT, added to keep them fresh.) 7. When these questions have been discussed, present the discussion question: Is the taste, design of the box, or list of ingredients most important to you in choosing a cereal, and why? 8. Present the discussion rules outlined in Chapter One, page 4. 9. Restate the discussion question. 10. Conduct the discussion.	Empty cereal boxes Table or counter space Three pieces of 9 x 12 inch (23 x 30 cm) construction paper, folded lengthwise as signs, one each labeled "most appealing," "average," and "least appealing"

Lesson 12. Exploring Misleading Advertising of Food Products

An open-ended discussion lesson through which students have an opportunity to share ideas, opinions, and feelings about misleading advertising of food products

Procedures	*Materials needed*
Discussion Sequence	
1. Inform the students that the purpose of this activity is to give them the opportunity to express how they feel about misleading food-related advertising. They will learn about different ways some food companies or stores try to trick or mislead their customers.	
2. Introduce the lesson topic by showing a new food you bought because the advertising convinced you to try it; but you were very disappointed with it because the advertising was misleading. You may also invite the students to recall similar experiences they have had.	
3. Distribute a copy of the "Tricky Advertising" work sheet to each of the students. Inform them that as you read the items one by one, they are to put a check by those items that are intended to trick people into buying the product.	Work sheet: "Tricky Advertising," page F-115
4. Read the items one at a time, giving the students time to place their checks on their papers.	
5. Review each of the items one at a time as follows: "Who marked number one as tricky? Would anyone like to share why you feel it is intended to trick you? Do any of you feel you have been tricked in that way with a product?" Continue with each of the remaining items in the same way. Note that items 1, 3, 4, and 6 are obviously deceptive, but the students may report ways in which the others are deceptive as well.	
6. To explore this concept further, you may want to invite the students to cite other ways in which food-related advertising can trick consumers.	
7. Inform the students that you would like to give them an opportunity to discuss. Choose one of the following discussion questions: • How do you feel about companies that mislead or try to trick people into buying their food products? • What might people do to try to avoid being misled or tricked by advertising?	
8. Present the discussion rules outlined in Chapter One, page 4.	
9. Restate, as it appears in number 7, the discussion question you have chosen for the students' response.	
10. Conduct the discussion.	

Lesson 13. Identifying Careers in Food Production

An information acquisition lesson designed to help students identify two titles of people who process, prepare, or serve food

Objective

After completing this lesson, students should be able to identify the activities and titles of people involved in the five stages of food production.

Key Facts

The food industry includes job opportunities in growing, processing, delivering, selling, and preparing food.

1. Producer or grower: poultry ranchers, dairy farmers, cattle ranchers, and agricultural farmers
2. Food processors and manufacturers: butchers, canners, meat packers and people who dehydrate or manufacture foods; e.g., cereals, fruit drinks, sodas, and so forth
3. Transporters: truckers and railroad, shipping, and airline workers
4. Sellers: grocery store owners and clerks, bakery salespeople, produce stand workers
5. Food preparers: cooks, chefs, family members, and bakers

All foods that we eat are affected by one or more of these job processes.

Activities: Food Production

Procedures	*Materials needed*
1. Display a food item (e.g., bread) in class and ask students the following questions: a. Where can this food be purchased? Who works there? What kinds of jobs might this person do? b. Who would have brought the food to the store? Where might this person have obtained the food? 2. Write on the chalkboard the names of the jobs identified by the students. When each job is identified, list the jobs in one of five food production categories (do not use category headings yet): producer or grower, food processor or manufacturer, transporter, seller, and food preparer. Repeat the questioning process with other food items (e.g., meat, cheese, fresh produce). After the jobs have been identified, described, and grouped according to production stage, ask the students if they can determine an appropriate category heading. (It may be appropriate to give students clues to help them label category headings.) 3. Discuss some unusual foods and the process they go through. (Farmers grow cranberries → cannery → train → store) Ask the students, "Can you name the workers in each of the production processes?" 4. Ask students whether foods from all four basic food groups go through the five production processes. Have them give an example from each group. a. Meat—rancher raises cattle → butcher → truck → restaurant or market → cook b. Milk—dairy cows produce milk → dairy → truck → processing plant → truck → market or house c. Fruit and vegetable—farmer produces oranges → juice manufacturer → truck → restaurant, market, or home d. Grains—farmer produces wheat → mill makes flour → truck → baker → truck → grocery store	Food items (e.g., bread, meat, cheese, fresh produce)

Activities: Food Processing

Procedures	Materials needed
1. Set up a food production "assembly line" and have the students assume the roles of food producers, processors, and transporters. Have the students work in groups of six to make Orange Juicicles.	Oranges Juicer Bowls Paper cups Tape
Producer: Farmer: Teacher brings oranges (enough for one-half orange per person).	
Processors: Slicer: Slices oranges in half.	
Juicer: Using the juicer, squeezes the juice of one-half orange into each bowl.	
Blender: Adds 1/3 cup (79 mL) water to each bowl and mixes.	
Packager: Pours the contents of each bowl into a small paper cup.	
Labeler: Puts a small piece of tape with each group member's name on each cup.	
Transporter: Trucker: Carries Orange Juicicles to the freezer.	
After about 20 minutes, insert the sticks into the Orange Juicicles.	Ice cream bar sticks
2. Alternative food experience:	
a. Have the students be farmers and grow herbs or alfalfa sprouts in small containers.	Herb seeds and small planter Alfalfa seeds Quart jar Rubber band Nylon stocking "Alfalfa Sprouts," directions, page 84
b. Have the students be processors and make butter, yogurt, or dry fruit.	"How to Make Yogurt," page 84 "How to Make Butter and Buttermilk," page 85
c. Discuss the processing of wheat. See "Wheat and Its Processing." Show the transparency of milling. Compare whole wheat bread and white bread. *Whole wheat* means the entire wheat kernel, the bran, germ, and endosperm were left in the flour. White flour has had the bran and germ removed during milling and is enriched with certain vitamins. Show a diagram of the wheat kernel. If possible, obtain a grain mill and demonstrate the grinding of the wheat kernel into flour.	"Wheat and Its Processing," page 85 "The Milling of Wheat," transparency master, page F-116 "Wheat Kernel Diagram," page F-117
d. Have a tasting session to try foods in their unprocessed form and in their different processed forms—canned, frozen, or dry. Discuss the differences in the nutrient levels of these foods. (National Dairy Council food comparison cards can be used.)	

Activities: Careers in Review

Procedures	Materials needed
1. With the game Job-O, have students review the job titles and the duties of processors and preparers of food. Each player receives a playing card and approximately 20 pinto beans or other markers. The players cover spaces labeled "Free" with a marker. One player or supervisor draws a skill card and reads the job description. The players look for the corresponding job title on their playing card and cover the space with a marker. The first player to cover the spaces either horizontally, vertically, or diagonally wins. (*NOTE:* Mount	"Job-O Cards," pages F-118—F-133 "Job-O Skill Cards," pages F-134—F-136 Beans or other markers

Procedures	*Materials needed*
the Job-O cards and Skill Cards onto card stock and laminate. For game storage, paste the directions on a manila envelope.) 2. Have the students visit a dairy or food packaging plant to observe the many different jobs the production process requires. Discuss the students' observations. 3. Have the students complete the crossword puzzle "The Food Source."	Crossword puzzle: "The Food Source," page F-137

Evaluation Suggestions

1. After the Job-O game, select a sample of the job description cards (skill cards) and ask the students to name orally the job title that fits the description.
2. Have the students complete the work sheet "Food-Related Careers," page F-139. Determine whether students have correctly matched the titles and job descriptions of people who prepare, process, or serve food.

Food Service Involvement

1. Ask the food service manager to demonstrate the making of bread or another food. Let the students work with a small amount of dough and give them the recipe to try at home.
2. Ask the food service manager to provide freshly baked bread, if possible, for the students to taste the butter they made in class.
3. Arrange for the food service manager to use the alfalfa sprouts grown in class in a salad or sandwich served as part of the school lunch.
4. Invite the food service manager to visit the class and to explain that food service employees function as professionals and are responsible for the school meals.
5. Ask a food service employee to discuss how food is delivered to the school cafeteria and how food is prepared for school lunches.

Notes

Answer Key:

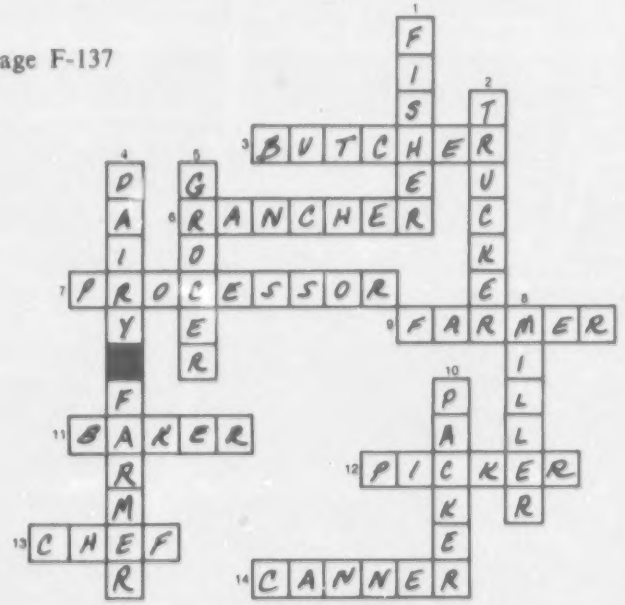
"The Food Source" crossword puzzle, page F-137

Down

1. Fisher
2. Trucker
4. Dairy farmer
5. Grocer
8. Miller
10. Packer

Across

3. Butcher
6. Rancher
7. Processor
9. Farmer
11. Baker
12. Picker
13. Chef
14. Canner



"Food-Related Careers," page F-139: 1. b, 2. e, 3. d, 4. h, 5. i, 6. a, 7. c, 8. j, 9. g, 10. f, 11. n, 12. k, 13. o, 14. m, 15.l

Alfalfa Sprouts

Prepare alfalfa seeds for sprouting. Place a tablespoon (10 g) of alfalfa seeds in a pint jar and soak them overnight in three to four tablespoons (45 to 60 mL) of warm water. (This soaking should be done in a dark place, such as a cupboard.) Pour the water off the next morning. If this activity is done at home, the water may be saved and added to fruit juice or soups. The seeds will have doubled in size and should be rinsed carefully to prevent mold. Return the seeds to the jar and cap the jar with cheesecloth or clean nylon stocking held by a rubber band or jar ring. Invert the jar at an angle in a big bowl, and put the jar and bowl in a dark, dry, warm place (cupboard or closet).

Begin counting the days of growth by marking a calendar for all the students to see. Ask the students to rinse the seeds (with cool water) and to drain them well twice daily for two to four days. After each rinsing and draining, return the inverted jar in the bowl to the cupboard or closet. Have the students observe the growth daily; explain again what elements plants need to grow.

Expose the sprouts to the light for a few hours to turn the leaves green. When the sprouts have grown to be two to three inches long, have the students prepare "Whisker Sandwiches" (buttered whole wheat bread sprinkled with alfalfa sprouts) or "Peanut Butter and Sprout Roll Ups." (Whole wheat bread is flattened and spread with peanut butter; sprouts are sprinkled on top; the bread is rolled from the bottom to the top and cut in half.)

How to Make Yogurt

Materials:

First day:
Crock or earthenware bowl (1½ quart [1.43 L] size)
Measuring spoon
Stirring spoon
Saucepan
Thermometer (optional)
Milk: 1 quart (.95 L)
Culture: 4 tablespoons (60 mL) plain yogurt (use a brand without additives)
Warm blanket, aluminum foil, or plastic wrap

Second day:
Small cups and spoons for everyone present
Crushed, fresh fruit in bowls for serving with the yogurt

Procedure:

Heat milk until it is warm but not boiling (110° F, 43° C).
Pour it into a crock or earthenware bowl.
Cool the milk until it is a little warmer than lukewarm. (Test it by putting a drop on the inside part of the wrist; the milk should feel warm but not hot.)
Add the yogurt (which should be at room temperature).
Stir gently until well blended.
Cover the top of the bowl with aluminum foil or plastic wrap and cover completely the entire bowl with a warm blanket. Let the bowl stand for at least five hours or overnight at room temperature.
Remove the blanket.
Place the yogurt in the refrigerator.
The next day put a small amount, about a teaspoon (5 mL), of yogurt in some cups.
Taste the yogurt plain, then with crushed fresh fruit.

How to Make Butter and Buttermilk

Materials:

Rotary egg beater
Bowl or pint jar with a tight fitting lid, or individual cups or jars, such as baby food jars, with tight fitting covers
Small wooden spoon
Measuring cup
Measuring spoon
Knife
Tongue depressors for tasting butter
Small paper cups for tasting buttermilk
Whipping cream (30 percent butterfat) (½ pint [237 mL] cream makes 1/3 cup [75 g] butter)
Salt (optional)

NOTE: If ripened cream is obtained from a dairy, the buttermilk forms more quickly and will have a tangy taste.

Procedure:

Allow the cream to come to room temperature.
Put the cream into a container, bowl, or jar. (Each container should be about half full.)
Beat or shake the cream until lumps of butter form throughout its surface. Everyone will have a turn to beat or shake the cream since 20 to 30 minutes are required to make butter. If the butter is being made in a jar, the class may sit in a circle, pass the jar, and count or sing while churning (shaking) it.
Pour off the buttermilk and chill it.
Put the butter in a small bowl.
With a wooden spoon, work the remaining buttermilk out of the butter.
Wash the butter several times with cold water.
Taste the butter plain; add ¼ tsp. (1.2 g) salt, if desired, and taste it again.
Taste the butter on whole wheat bread. (Homemade bread is delicious!)
Taste the buttermilk.

Churn, Churn, Churn the Cream
(Tune: "Row, Row, Row Your Boat")

Churn, churn, churn the cream.
Churn, churn, churn the cream.
When it finally turns to butter,
Everyone will beam.

Wheat and Its Processing

Every day, wheat is a big part of the food you eat. Different kinds of wheat are used to make different kinds of products. But most of the wheat is turned into flour, which is used to make everything from breads to noodles, from crackers to cookies.

Turning wheat into flour is called processing. Here is what happens.

After the wheat is harvested, the grain is loaded onto a truck which carries the grain to a tall building, a "grain elevator."

Here, the grain is cleaned, dried, and weighed. Often, people who work at these elevators also "grade" the wheat. (And you thought only students got graded!) Wheat is graded for its quality, based on government standards.

The grading of wheat is important. It tells the farmers how much money they will get for their hard work in producing the crop.

After the wheat is graded, it may be sold to a miller, who grinds the grain into flour. Or, the grain may be shipped to a "terminal elevator," which is a large grain elevator. Here the grain is stored until it is shipped to a miller or sent in ships to other countries.

Once the grain reaches the miller, the process of turning it into flour begins. To understand this process, you need to know what a wheat kernel is like. First, there is a covering around the kernel, called the *bran*. Most bran is used in making feed for livestock, but some is used to bake delicious bran muffins. Inside the bran is the *endosperm*, which soon will become flour. Finally, there is a tiny new plant in the wheat kernel, called the *germ*. Giant processing machines grind and sift the wheat kernels to make flour, which goes into sacks and is used by bakers to produce over 250 million pounds of bread each week in the United States.

Lesson 14. Exploring Food-Related Careers

An open-ended discussion lesson through which students have an opportunity to share ideas, opinions, and feelings about food-related careers

Procedures	*Materials needed*
Discussion Sequence 1. Inform the students that the purpose of this lesson is to give them an opportunity to explore their feelings and preferences about food-related careers. 2. Inform the class that they all soon will have an opportunity to "act out" a food-related career and that their job as a group will be to present the career in such a way that the rest of the class can guess what they are doing. Each group will have two minutes to act out its career, and the group which finishes in the least amount of time "wins," because it portrayed the career well enough so that the students guessed it in the shortest amount of time. 3. Provide a model pantomime for the students on a food-related career. 4. Ask the class to count off by sixes. Tell the students that their number is their group number. 5. Assign specific meeting places for each group. 6. Inform the students that one group member is to draw the assignment, written on a piece of paper, out of a box. The career will be given along with suggestions for acting it out. Remind the students that these are only suggestions which they may modify. 7. Allow the students to move to their groups. 8. Tell each group that you will be happy to serve as an adviser. 9. Tell the students that they will have 5 to 7 minutes to plan and practice their pantomime. Emphasize that they may *not* talk during their presentation. 10. At the end of 5 to 7 minutes, call all the groups back into the room and ask them to take their regular places. 11. Call on the members of Group One to present their pantomime. 12. Instruct the rest of the class to call out their guesses of which career is being portrayed. 13. Time how long it takes the students to guess. 14. If no one guesses within two minutes, call time and ask the group to tell the class what they were doing. 15. When the pantomime is finished, ask the members of Group One to return to their regular places. 16. Repeat steps 11—15 with the remaining groups. 17. After all the groups have had an opportunity to present their careers, say to the class, "Thank you very much for your presentations. You have had a chance to see six food-related careers. Some of these may appeal to you and some may not. You will have a chance to discuss that in just a minute." 18. Present the discussion rules outlined in Chapter One, page 4. 19. Present the discussion question: If you were going to choose a food-related career, which would you choose and why? You may choose one of the six presented or any others you may already know about.	Watch or clock with second hand Student pantomime assignments, page F-140 **Teacher Pantomime Suggestions:** Career: Fruit Picker 1. Tell the class that you are going to pretend you are a fruit picker. Model and describe for the class as you are acting how you are pantomiming the situation. 2. Tell the class that you are going to talk because you want to explain the procedure, but they are not allowed to. (*Option:* You may want to put the word *pantomime* on the board and tell the students it is two Greek words put together: *pantos,* meaning "all" and *mimos,* meaning "imitator." Together these words mean "one who imitates all things." This means that the students can imitate by moving their mouths, but that no sound should come out. Some of the students may have seen pantomime either on television or performed by a clown at the circus.) 3. Suggestions for the teacher miming a fruit picker: a. Look up at a tree. b. Get a ladder. c. Climb up the ladder.

Procedures	Materials needed
	d. Pick the fruit and put it in a sack attached to your side. e. Climb down the ladder. f. Dump the fruit in a basket. g. Carry the basket to a waiting truck. 4. As you are performing the actions listed above, you should be explaining to the students what you are doing. 5. Explain that when the students act out their food worker, they cannot talk, but they must help their classmates guess which worker they are pretending to be.

Minimum Proficiency Levels for Nutrition Education Preschool Through Grade Twelve

Through the enactment of state legislation and participation in federal child nutrition programs, California has made a major commitment to nutrition education. With financial support provided by the Child Nutrition Facilities Act (Senate Bill 120) and the National School Lunch Act and Child Nutrition Amendments (Public Law 95-166), California has established a comprehensive nutrition education and training program.

The goal of the Nutrition Education and Training Program is to enable individuals to develop the knowledge and skills necessary to make wise food choices, which will contribute to their overall health and well-being throughout their lives.

In an attempt to achieve systematically the goal of nutrition education, minimum proficiency levels for students were developed jointly by staff members of the State Department of Education, food service representatives, nutrition education specialists, teachers, and curriculum specialists. Those levels of performance are identified in the charts that appear on the following pages. The charts present an outline of expected performance in nutrition education for students enrolled in preschool, kindergarten, primary grades, upper elementary grades, and junior and senior high schools. The minimum proficiency levels support the nutrition concepts found in the *Health Instruction Framework for California Public Schools*, which was adopted by the State Board of Education in 1977. As nutrition education specialists, teachers, food service personnel, and aides design classroom activities, the minimum proficiency levels will provide a foundation for nutrition instruction, curriculum development, and evaluation.

Projects funded under either the Child Nutrition Facilities Act or Public Law 95-116 will use the minimum proficiency levels as a basis for their nutrition education programs. Persons responsible for planning and implementing nutrition education programs should plan to address each performance standard required for students to achieve proficiency in nutrition education. They may, in addition, expand the performance standards to include additional activities.

Topics	Minimum standards of performance in nutrition	
	Preschool age/kindergarten (Ages three—five)	Early childhood (Primary grades, ages six—eight)
A. Food Choices Daily food intake is related to the attainment of optimum health. • Food classifications make it easier to select foods that will help a person achieve a nutritionally adequate diet. • A variety of foods can be combined to help ensure a nutritionally adequate diet that includes the nutrients that are necessary for optimum health.	*Students will:* Name a variety of foods.	*Students will:* Classify the foods in the Basic Four Food Groups. Identify the number of servings needed daily from each of the Basic Four Food Groups. Identify the food groups that should be included within the School Lunch Pattern.
• Foods contain the nutrients the human body requires to function properly, and the interrelationships among nutrients are important for promoting health.	Identify one reason why we need food.	Identify two diet-related health problems and the kinds of foods associated with the problems. Identify two sequential steps in the process of digestion.
• Nutritional needs vary for individuals.		Identify one activity which requires less energy (from food) and one activity which requires more energy (from food).
• Food is a component of the ecosystem, and many products can be combined for appropriate menus. • Animal and plant products are substances of the food supply and are components of the ecosystem.	Classify foods as being of plant or animal origin.	Classify foods from plants as fruits, vegetables, or grains. Classify foods from animals as meat, poultry, milk, eggs, or fish.

education, according to developmental levels of students

Preadolescent (Upper elementary, ages nine--eleven)	*Adolescent* (Junior high, ages twelve—fifteen)	*Young adult* (High school, ages sixteen—eighteen)
Students will: Identify one major nutrient provided by each of the Basic Four Food Groups. Plan a nutritionally adequate meal that would ensure a nutritious eating pattern. Specify one reason why the School Lunch Pattern contributes to nutritional health.	*Students will:* Select menu alternatives to maintain a nutritionally adequate meal. Select a school lunch that meets personal nutrient and caloric needs.	*Students will:* Distinguish facts from fallacies concerning the nutritional value of foods. Given limited food resources, select a nutritionally adequate diet based on nutrient criteria.
Name the six nutrient groups. Identify at least one function for each of the six major nutrient groups. Recognize the pathway of food during the process of digestion.	Recognize that a calorie is a measure of the energy value of food.	Identify the purpose of the recommended dietary allowances. Identify the physiological processes involved in the digestion, absorption, and metabolism of nutrients.
Cite two reasons for the difference in the amount of food required by individuals.	Identify at least two of the effects food choices have on a person's physical fitness and appearance.	Identify at least two ways that food habits and exercise, environment, work, and leisure activities interact to affect health. Explain how stress influences nutritional needs. Plan a nutritionally adequate diet that will result in a person's achieving or maintaining desired weight.
Identify foods from plants or animals that are a major source of carbohydrate, protein, or fat.	Specify a combination of two foods from plants that contain complementary proteins. Identify one reason to include whole grains in a diet.	Identify one way a vegetarian can obtain a nutritionally balanced diet.

Topics	Minimum standards of performance in nutrition	
	Preschool age/kindergarten (Ages three—five)	Early childhood (Primary grades, ages six—eight)
B. Factors Influencing Food Choices Life-styles, peers, and individual family resources reflect similarities and differences in food choices. • Eating patterns are formed by interrelationships of physical, social, psychological, environmental, and cultural influences.	*Students will:* Identify one practice that makes mealtime enjoyable. Identify one influence on food choices.	*Students will:* Identify two aspects of a school dining environment that may affect behavior. Specify two nutritious snack foods that could be brought to school for class parties. Recognize that families have different ways of selecting and serving food.
C. Food-Related Careers Needs, roles, responsibilities, and educational requirements affect choices in food and health nutrition-related careers. • Food-related occupations exist for society's purposes and contribute to society's ways of living.	Identify the roles of the farmer, truck driver who transports food, storekeeper, and family members in food availability.	Identify two titles of people who process, prepare, or serve food. Identify titles of two health professionals who provide advice on food selection in relationship to dental and general health.

education, according to developmental levels of students

Preadolescent (Upper elementary, ages nine—eleven)	*Adolescent* (Junior high, ages twelve—fifteen)	*Young adult* (High school, ages sixteen—eighteen)
Students will: Identify how home and/or social eating environments influence food selection. Identify two ways aesthetic and sensory qualities influence food choices. Specify one example of a food associated with a different country/community and its nutrient contribution.	*Students will:* Identify how an emotional feeling influences eating behavior. Identify how different cultural food patterns supply nutritionally adequate diets.	*Students will:* Identify how social conditions influence eating behavior. Identify one major nutritional problem in other areas of the world and a possible solution to the problem.
Identify the role of the sanitarian, nutritionist, dietitian, and research scientist.	Identify the career possibilities in the following food-related fields: consumer food advocacy, agriculture, and food services.	Identify the educational requirements of two specific careers in nutrition, food technology, consumerism, and food safety. Identify contributions of nutrition knowledge to other disciplines.

Topics	Minimum standards of performance in nutrition	
	Preschool age/kindergarten (Ages three—five)	Early childhood (Primary grades, ages six—eight)
D. Consumer competencies Effective utilization of the existing resources may enhance the potential for satisfying individual and family nutritional needs and wants. • Merchandising techniques influence food selection. • Consumers, through food choices, affect the production and distribution of food. • Labeling provides consumers information to make satisfying food choices.	*Students will:* Identify one purpose of television commercials. Recognize what can be done to avoid being wasteful when serving food.	*Students will:* Identify how advertisements influence selection of breakfast and snack foods. Identify one way of decreasing food waste during lunch at school. Given a food label, recognize the main ingredient in the product.
E. Food Handling* The quality and safety of foods are influenced by handling, processing, and preparing of foods. • Food production is influenced by technology and environmental factors. • Food availability and quality are dependent upon food handling techniques. • Sanitation practices in food processing and preparation are necessary for optimum health. *Note: Handling means everything that happens to food while it is being grown, processed, preserved, stored, and prepared for eating.	Identify what makes plants grow. Specify why and how persons should wash their hands before food is handled or eaten. Identify one way of preparing food for eating. Identify one way to store food that helps to keep it fresh and clean.	Identify two sanitation procedures that should be practiced when food is prepared. Identify two ways of cooking food. Identify two foods that must be stored at a cool temperature.

education, according to developmental levels of students

Preadolescent (*Upper elementary, ages nine—eleven*)	*Adolescent* (*Junior high, ages twelve—fifteen*)	*Young adult* (*High school, ages sixteen—eighteen*)
Students will: Specify one way students can improve the environment in the school lunchroom. Specify one way a student can have an influence on the school lunch menu selection. Use unit pricing to get the best buy when purchasing snack foods.	*Students will:* Specify one way a consumer can influence decisions made in the food industry. Specify one way the student can influence the school food service program. Identify the required and optional information found on food labels. Specify two major factors that affect cost, quality, availability, or variety of food in the marketplace.	*Students will:* Evaluate nutrition claims made in the merchandising and advertising of food. Use nutritional labels to compare the nutritional value of foods. Identify two criteria for evaluating the validity of nutrition information. Identify two ways the consumer can decrease the food budget without sacrificing the nutritional quality of the diet. Identify responsibilities of local, state, and federal agencies in determining requirements for school food service programs.
Identify two factors which affect the yield and quality of food crops. Identify two ways to prevent food-borne illnesses. Identify two ways of food preparation which maximize nutrient retention.	Identify two organisms that may cause food-borne illness and two foods that are particulary susceptible to such organisms. Identify three ways of cooking food to maximize nutrient retention. Identify three methods of preserving food at home. Recognize one local, one state, and one federal governmental agency responsible for food sanitation and safety enforcement.	Identify one reason for the use of pesticides and one reason against the use of pesticides. Identify reasons for two sanitation precautions that should be followed by food service personnel. Specify one advantage and disadvantage of food processing.

Minimum Proficiency Levels Addressed in State-Adopted Health and Science Textbooks

Many state-adopted health and science textbooks contain sections specifically related to nutrition education. The following charts are designed to identify those nutrition-related sections in state-adopted health and science textbooks that correspond to the minimum proficiency levels for nutrition education. The textbook sections may be especially useful in providing supplementary reading material, charts, pictures, and experiments to coincide with lessons contained in the *Nutrition Education—Choose Well, Be Well* series.

To locate appropriate text sections, find the nutrition proficiency in the left-hand column. Look across the chart to find the column for the health or science textbook series used in the classroom. If the textbook series contains a section relating to the proficiency, a reference is given to the grade level text in the series and appropriate page numbers. For some proficiency levels, there will be more than one reference; for others there may be no available information in the textbook. Occasionally, reference will be given to a textbook for a grade level different from that recommended for the lesson, thereby allowing teachers to use materials of an appropriate reading level or to choose selectively lessons from other grade levels to meet students' needs and interests.

Cross-Reference of Health and Science Textbooks to Minimum Proficiency Levels for Nutrition Education
Grade 1

Textbook or Instructional Material: Health

Proficiency *Students will.*	Health Decisions for Growth Harcourt, Brace Jovanovich *As You Grow*	Human Development Program Human Development Training Institute	Health and Growth Program Scott Foresman	You and Your Health Program Scott Foresman	The Healthful Living Program Laidlaw Bros. *Your Health*
Classify plant foods from plants as fruits, vegetables, or grains.	Grade 1: 72-73, 77		Grade 3: 116—119, 122-123	Grade 1: 98-99 Grade 3: 144-147, worksheet 166	Grade 2: 96-101 Workpage 112
Classify foods from animals as meat, poultry, milk, eggs, or fish.	Grade 1: 72-73, 77			Grade 1: 98-99	
Identify two diet-related health concerns and the kinds of foods associated with these concerns.	Grade 2: 132, 134, 135 Grade 3: 92, 141, 146	No applicable lessons for grades 1—3	Grade 3: 83 Grade 2: 106-107	Grade 3: 161	Grade 1: 90-91 Grade 3: 119-121
Identify the titles of two health professionals who provide advice on food selection in relationship to dental and general health.			Grade 1: 36-37	Grade 1: 100-113, 117, 118	
Specify two nutritious snack foods that could be brought to school for class parties.	Grade 2: 135		Grade 3: 83	Grade 3: 161	Grade 3: 105
Identify how advertisements influence our selection of breakfast and snack foods.				Grade 1: 104, 118	
Identify two sanitation procedures that should be practiced when food is prepared.	Grade 3: 146		Grade 3: 139, 142, 158-159 Grade 3: 82-83	Grade 2: 98-99 Grade 3: 123, 128, 131, 138, 183	Grade 1: 68

Cross-Reference of Health and Science Textbooks to Minimum Proficiency Levels for Nutrition Education
Grade 1

Textbook or Instructional Material: Science

Proficiency *Students will:*	*Concepts in Science*, Curie Edition, Harcourt Brace Jovanovich	*Concepts in Science*, Newton Edition, Harcourt Brace Jovanovich	*Exploring Science* 1976 Laidlaw Bros.	*Exploring Science* 1979 Laidlaw Bros.	*Gateways to Science* McGraw-Hill Webster Division	*Science: Understanding Your Environment* Silver Burdett Company		
Classify plant foods as fruits, vegetables, or grains.			Grade 2: 22-23, 26	Grade 2: 22-23, 26				
Classify animal foods as meat, poultry, milk, eggs, or fish.			Grade 2: 24-25, 27	Grade 2: 24-25, 27				
Identify two diet-related health concerns and the kinds of foods associated with these concerns.					Grade 3: 16 - 18			
Identify the titles of two health professionals who provide advice on food selection in relationship to dental and general health.								
Specify two nutritious snack foods that could be brought to school for class parties.	Grade 1: 56-57	Grade 1: 120-121						
Identify how advertisements influence our selection of breakfast and snack foods.								
Identify two sanitation procedures that should be practiced when food is prepared.						Grade 2: 162 - 166		

Cross-Reference of Health and Science Textbooks to Minimum Proficiency Levels for Nutrition Education
Grade 2

Textbook or Instructional Material: Health

Proficiency *Students will:*	Health Decisions for Growth Harcourt Brace Jovanovich *You Make Choices*	Human Development Program Human Development Training Institute	Health and Growth Program Scott Foresman	You and Your Health Program Scott Foresman	The Healthful Living Program Laidlaw Bros. *Being Healthy*
Classify the foods in the Basic Four food groups.	Grade 1: 76 Grade 2: 116-125 Grade 3: 106		Grade 3: 122-123 Grade 2: 98-105 Grade 1: 54-55	Grade 1: 98-99 Grade 2: 79-83, 87 Grade 3: 148-149	Grade 2: 94—105, Balanced Meals 107—111, 113 Workpage 112-113
Identify the number of servings needed daily from each of the Basic Four food groups.	Grade 3: 106		Grade 3: 122-123 Grade 2: 100-103, 107	Grade 2: 80-85 Grade 3: 148-149	Grade 3: 116-117
Identify two sequential steps in the process of digestion.	Grade 3: 163, 200	No applicable lessons for grades 1—3		Grade 2: 40-41 Grade 3: 81-83	Grade 3: 108-112
Identify two aspects of a school dining environment that may affect eating behavior.	Grade 1: 88 Grade 2: 105				Grade 1: 104-105
Identify two titles of people who process, prepare, or serve food.					
Identify one way of decreasing food waste during lunch at school.			Grade 2: 106-107		
Identify two foods that must be stored at a cool temperature.			Grade 3: 139, 142, 158-159	Grade 3: 180-182	

Cross-Reference of Health and Science Textbooks to Minimum Proficiency Levels for Nutrition Education
Grade 2

Textbook or Instructional Material: Science

Proficiency *Students will:*	*Concepts in Science,* Curie Edition Harcourt Brace Jovanovich	*Concepts in Science,* Newton Edition Harcourt Brace Jovanovich	*Science: Understanding Your Environment* Silver Burdett Company				
Classify the foods in the Basic Four food groups.	Grade 1: 56-57	Grade 1: 120-121 Grade 2: 152					
Identify the number of servings needed daily from each of the Basic Four food groups.							
Identify two sequential steps in the process of digestion.							
Identify two aspects of a school dining environment that may affect eating behavior.							
Identify two titles of people who process, prepare, or serve food.							
Identify one way of decreasing food waste during lunch at school.							
Identify two foods that must be stored at a cool temperature.			Grade 2: 166				

Cross-Reference of Health and Science Textbooks to Minimum Proficiency Levels for Nutrition Education
Grade 3

Textbook or Instructional Material: Health

Proficiency *Students will:*	Health: Decisions for Growth *At Your Best* Harcourt Brace Jovanovich	Human Development Program Human Development Training Institute	Health and Growth Program Scott Foresman	You and Your Health Program Scott Foresman	The Healthful Living Program, *You and Your Health* Laidlaw Bros.
Identify one activity which requires less energy from food and one activity which requires more energy from food.	Grade 2: 114-115, 118-119 Grade 3: 184-185		Grade 1: 42-43	Grade 1: 92-95	
Identify the food groups that should be included within the school meal pattern.	Grade 2: 105, 114-125 Grade 3: 100-110		Grade 2: 98-107 Grade 3: 116-123	Grade 1: 98-99 Grade 2: 79-85 Grade 3: 144-149, Worksheets 166, 167	Grade 3: 112-117 Grade 2: 106-111
Recognize that families have different ways of selecting and serving food.		No applicable lessons for grades 1—3	Grade 3: 117 Grade 3: 124-130	Grade 1: 100-101 Grade 2: 87 Grade 3: 150-151	
Identify two titles of people who process, prepare, or serve food.	Grade 3: 76		Grade 3: 158-159	Grade 3: 182-183, 191	
Given a food label, recognize the main ingredient in the product.	Grade 4: 164-165, 168			Grade 3: 152-153, Worksheet 167	
Identify two ways of cooking food.				Grade 3: 139-143, Worksheets 165, 167	

Cross-Reference of Health and Science Textbooks to Minimum Proficiency Levels for Nutrition Education Grade 3

Textbook or Instructional Material: Science

Proficiency *Students will:*	*Concepts in Science*, Newton Edition Harcourt Brace Jovanovich	*Gateways to Science* Harcourt Brace Jovanovich	*Science: Understanding Your Environment* Silver Burdett Company			
Identify one activity which requires less energy from food and one activity which requires more energy from food.						
Identify the food groups that should be included within the school meal pattern.	Grade 2: 152	Grade 3: 14-16	Grade 3: 113-116			
Recognize that families have different ways of selecting and serving food.						
Identify two titles of people who process, prepare, or serve food.						
Given a food label, recognize the main ingredient in the product.						
Identify two ways of cooking food.						

Classroom Food Experiences

Recipes and food experiences should be selected to help teach children to select and eat nutritious foods. Children can prepare nutritious foods that they enjoy eating, such as fruits, vegetables, whole grain products, lean meats, poultry and fish, and low-fat or non-fat milk, and other dairy products.

Guidelines for Recipe Selection

In cooking experiences, new foods are introduced and familiar foods are prepared in new ways. Often, children are willing to eat foods in class that they may consistently reject at home. All students should be expected to taste the foods presented and to express their feelings about the foods through class discussion or another evaluation technique. Each child should receive a copy of the recipe prepared in class to share with his or her family. The back of a recipe provides an ideal place to write information about nutrition and the nutrition project. Since parent involvement is an integral part of the project, the establishment of effective lines of communication between the classroom and the home is critical.

Food activities can be integrated into the total curriculum. From classroom food experiences students learn subjects like the social studies, health, science, language, music, art, and math. Children learn about fractions by cutting potatoes into halves, quarters, and eighths; while cooking, they learn new words, concepts, and skills.

Suggestions for Implementing Food Experiences

1. Limit the cooking experience to no more than 15 children by working with half of the class at a time. The other half of the class may be in the media center, the library, or involved in another activity. Some of the tasting experiences and simple cooking activities can be modified to involve the whole class, if necessary.
2. Provide a recipe folder for each child to decorate (art activity) and keep at home for his or her recipes. Reminders for safe and sanitary food preparation can be included in the folder.
3. Have each child make a placemat to use in school (art activity). Laminate the placemats for durability.
4. Invite the parents to volunteer their help in cooking. The children's enthusiasm can be helpful in bringing their parents into the school.
5. Request the parents to inform the school about any food allergies, intolerances, or avoidance for religious reasons their children may have.
6. Involve the district food service department in the food experiences. Ask the cafeteria manager to work with you in the classroom. Investigate the use of donated foods in the classroom. Utilizing food services can improve your program.
7. Exhibit measuring utensils. A portable pegboard mounted on an easel can be used to display and store measuring cups, spoons, and other safe utensils that hang. Plan a lesson to familiarize the children with measurement and utensils.
8. Store all cooking equipment on a portable cart so that it can be moved from one classroom to another.
9. Prepare a large recipe chart for each food experience. Read the recipe with the children. Point out methods of food preparation (dice, slice, and blend) and cooking (steam, stir-fry, and bake). Add these words to the student's spelling or vocabulary lists.
10. Discuss the relationship of food choices to good health at each cooking experience.
11. Take advantage of all opportunities to clarify new concepts. For example, explain oven temperature in degrees. Relate this to body temperature and weather temperature and to boiling and freezing points.
12. Maintain a pleasant atmosphere during food tasting experiences. Centerpieces and placemats can be used whenever possible. Students are expected to show courtesy and good table manners, such as talking softly and eating only after all of the children at the table have been served. The children set the table, serve the food,

and clean up. Similar behavior is appropriate in the school dining facility.

13. Ask all students to taste the foods prepared, and discourage them from making negative faces and comments like "yuk" at the table. Rather, ask the children to identify what they like or dislike—texture, color, appearance, or taste. Concentrate on the positive. Explain that it is all right to dislike a food or to prefer it prepared one way more than another. Point out that taste preferences change; thus, tasting foods periodically is a good idea. As the students learn about the nutritional value of foods, they may be influenced to taste new foods.
14. Involve all of the children participating in the food experience. Cooking experiences should be "hands on" activities. Allow the children to do the preparation, cooking, and cleanup whenever possible.
15. Use bulletin boards that relate to the food preparation experiences.
16. Relate field trips to the food experiences. Make a salad with vegetables that the class purchased in a produce market. Cook the fish that was purchased on a field trip. Experiment with foods from an Asian grocery.

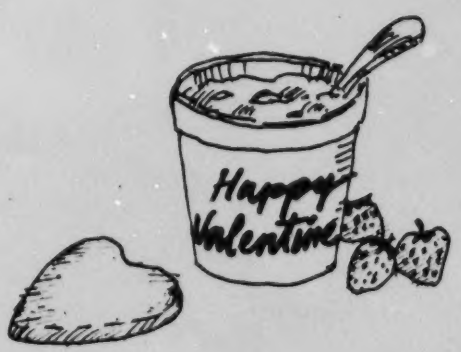
Safety and Sanitation

1. Keep hot foods hot (over 140° F or 60° C) and cold foods cold (under 40° F or 50° C). If you have no refrigerator, a styrofoam ice chest will keep foods hot or cold for short periods of time.
2. Stress clean hands. Explain that germs which cause infection cannot be seen without a microscope. Even hands that look clean should be washed before one begins food-related activities. Demonstrate and have students practice proper hand washing techniques. Four steps in proper hand washing are as follows:
   a. Wet the hands thoroughly.
   b. Lather the hands, front and back, with soap.
   c. Rinse the hands with clean water.
   d. Dry the hands with a clean towel.
3. Wash fruits and vegetables thoroughly. Wash the tops of cans before you use them.
4. Always use dry pot holders when working with hot food and equipment. Keep hot equipment in a safe location in the room. Treat burns *immediately* by holding the burned area under cold water. Report *all* injuries to the school nurse.
5. Be sure that the electric cords are not in the way of traffic.
6. Keep all pot handles turned toward the back of the stove or hot plate.
7. Supervise the children closely when they are using sharp knives. Teach the children to cut away from themselves, always keeping their fingers away from the blade. Heavy plastic knives, wooden ice cream sticks, or tongue depressors can be used for spreading and some slicing.
8. If the dishes are washed by hand, use hot, soapy water, rinse in hot, clean water, and air-dry or paper-towel-dry. Clean all utensils, even can openers.
9. Invite the cafeteria manager to class (or visit the school cafeteria) to tell the students about the safety and sanitation regulations for food service sites. Relate this information to practices in the classroom.
10. Remind the children and volunteers about these rules before each cooking experience.

Holiday Foods

This teacher idea sheet has suggestions for snacks to serve during holidays throughout the year.

Valentine's Day



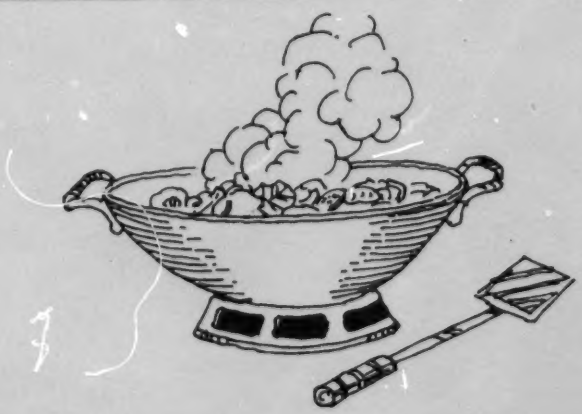
Sweetheart yogurt cups

Use plain yogurt (homemade or store bought) mixed with fresh crushed strawberries.

Heart-shaped finger gelatin

Dissolve one tablespoon (15 mL) plain gelatin in one cup (237 mL) fruit juice. Pour the mixture into a flat pan, chill, and cut into hearts with a heart-shaped cookie cutter.

Chinese New Year



Serve in a salad or sandwiches bean sprouts that you have grown yourself.

Serve stir-fry vegetables.

Stir-fry vegetables in a wok or frying pan.

Add two tablespoons (30 mL) oil and four cups (303 g) of a variety of washed, sliced vegetables; e.g., green pepper, zucchini, bean sprouts, pea pods, or mushrooms.

Spring

Bunny Salads

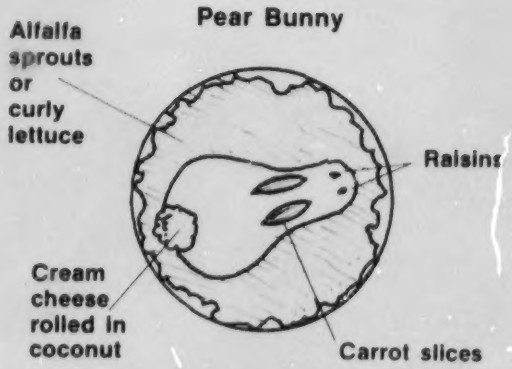
Provide the students with ingredients, and let them create their own bunnies.

Eggs in a basket

Put alfalfa sprouts into a bowl. Roll teaspoonfuls of peanut butter or cream cheese into snack balls. Place balls on top of sprouts.

Spring flowers

Slice a turnip and cut it into a flower. Slice a carrot into rounds and pierce it with a toothpick.



Cinco de Mayo (May Fifth)

Help students prepare quesadillas. Cover one-half of a snack-size flour tortilla with grated cheese. Fold it over and fry both sides in a buttered electric skillet. Cool the quesadilla slightly and serve it.

Summer

Fruit boats

Use small slices of cantaloupe for the hull of the boat. Decorate it with a paper sail mounted on an ice cream bar stick.

For miniboats, stuff prunes with peanut butter and decorate them with paper sails on toothpicks.

Race cars

Fill celery sticks with peanut butter. For wheels use carrot rounds held on with toothpicks.

Halloween

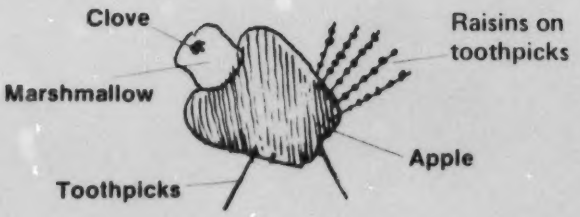
Cheese pumpkins

Mix grated cheddar cheese with a dab of mayonnaise to hold the cheese together. Roll the cheese into small balls (approximately ¾ inch [2 cm]). Top each cheese ball with a raisin for a stem. Set the cheeseball on a whole grain cracker to serve.

Thanksgiving

Apple Turkey

Have each student assemble an apple turkey.



Chanukah

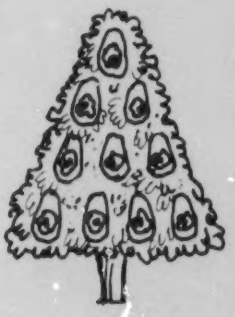
Potato Latkes (Pancakes)

Two cups (404 g) grated, raw potatoes
Two eggs, beaten
One teaspoon (5 g) salt
Two tablespoons (14 g) flour
One-fourth teaspoon (1.2 g) baking powder
Combine and mix ingredients well. Drop by tablespoons onto a hot, greased griddle. Flatten. Fry on both sides. Serve with applesauce.

Winter

Egg Ornament Tree

Cut a piece of cardboard into the shape of a tree. Cover the cardboard with foil, then parsley. Decorate the tree with deviled eggs which have been decorated with olives and paprika or other foods.

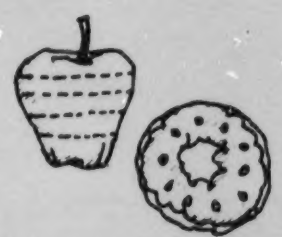


Cheesy Vegetable Wreath

Mix up a favorite cheese ball recipe. Form the mixture into a wreath shape on a large platter. Sprinkle with sesame seeds, sunflower seeds, and/or chopped nuts. Surround the wreath with Christmas-colored vegetables, such as broccoli, cauliflower, thin slices of fresh beets, zucchini, cherry tomatoes, radishes, and so forth. Serve with whole grain crackers.

Apple Wreaths

Spread slices of apple with cream cheese. Decorate them with raisins, nuts, and seeds. (The cream cheese may be dyed green.)



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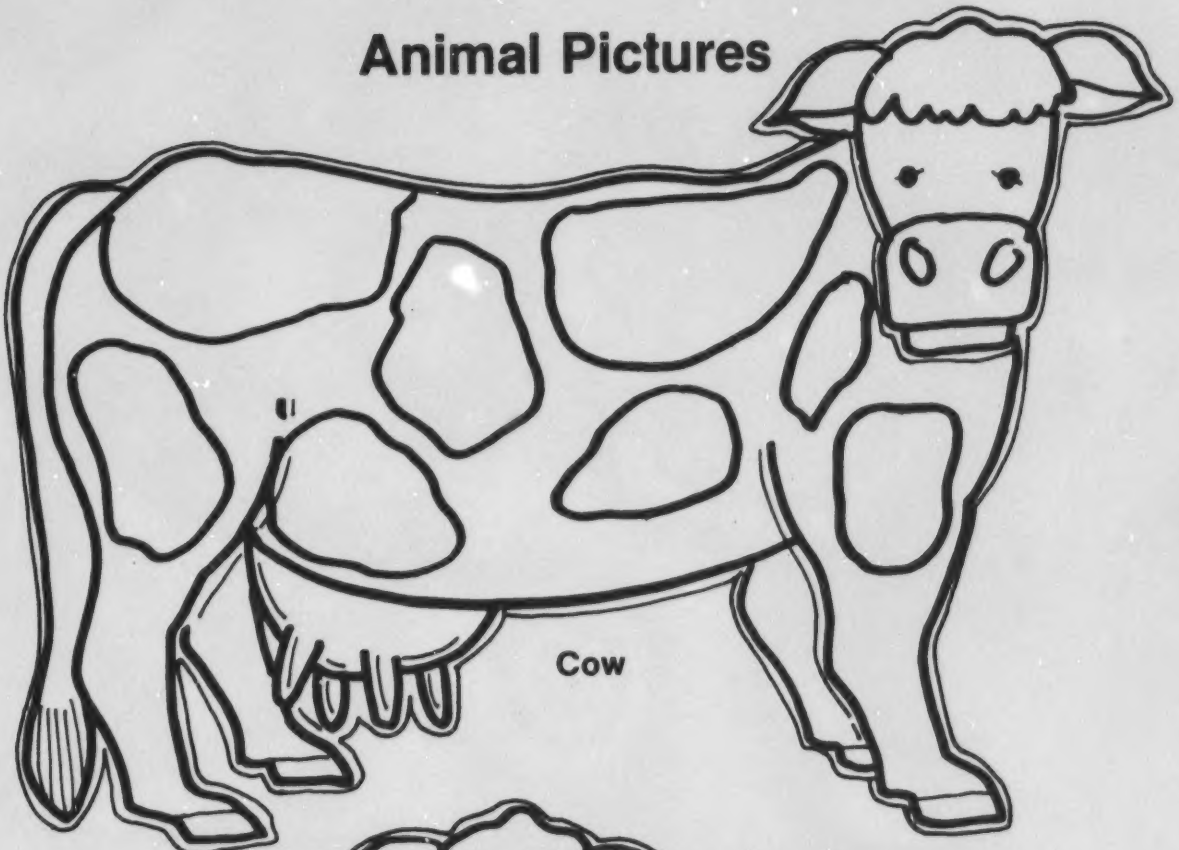
Shirley Zaugg	Escondido Union Elementary School District
Ethel Zelambo	Downey Unified School District
Joyce Zelenz	Escondido Union Elementary School District
Grace Zuber	Woodland Joint Unified School District

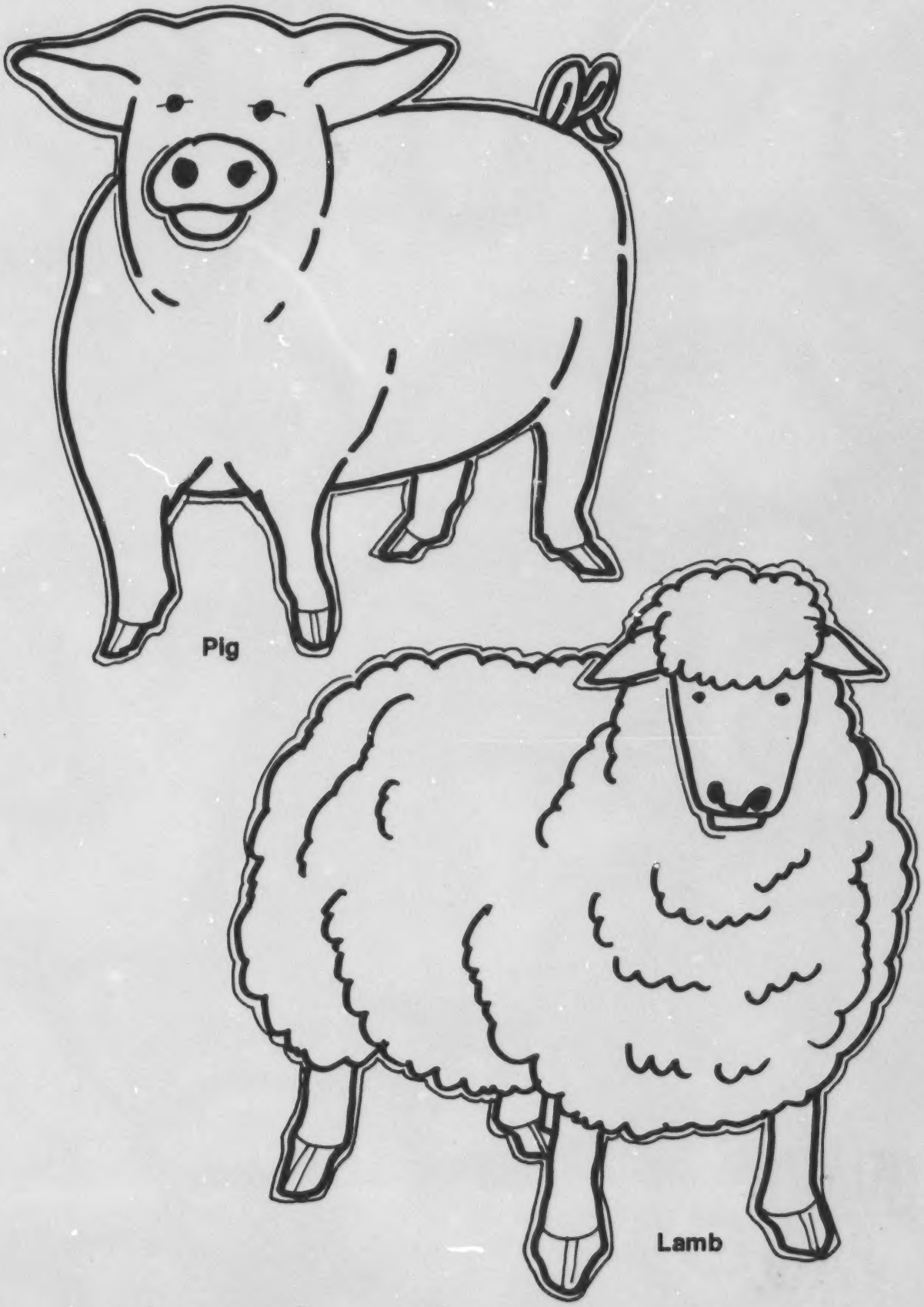
Student Materials

This section contains the work sheets, puzzles, and games that were cited in the text. Pages may be removed from the guide and used as a duplication master, or they may be laminated to tagboard as a game original or poster. Refer to the specific lesson procedures for details in the use of the student materials.

Mrs. Fluffy

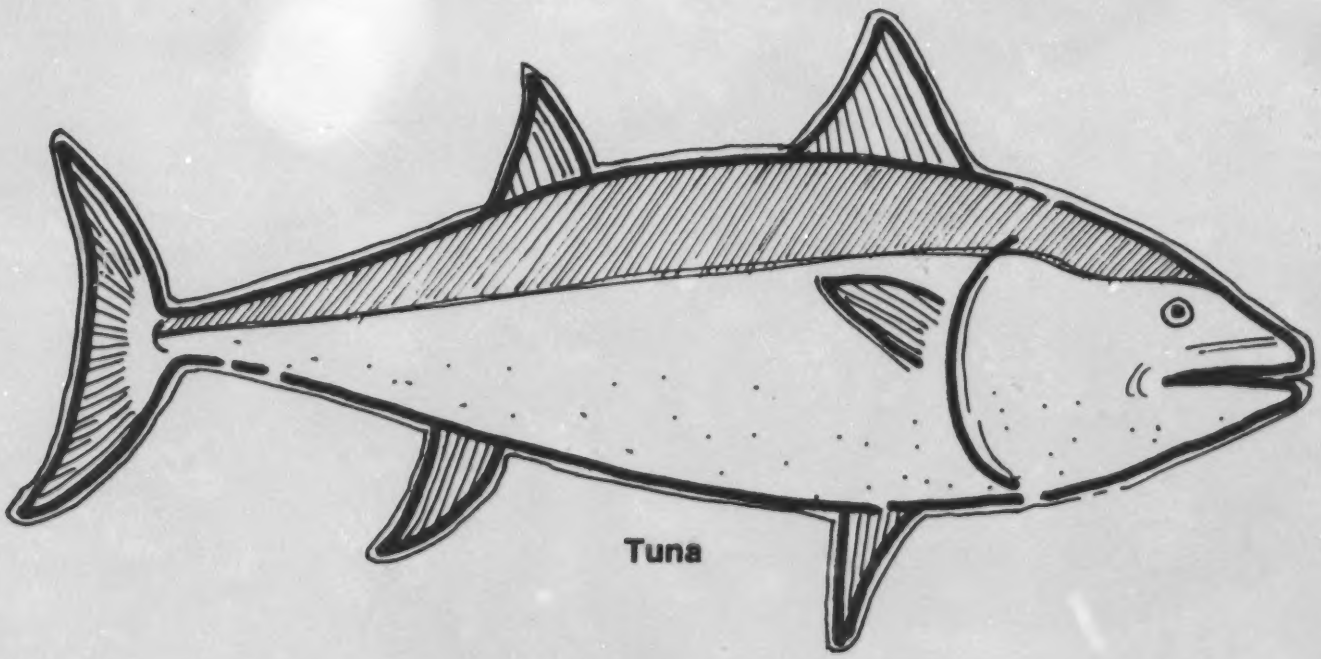
Animal Pictures



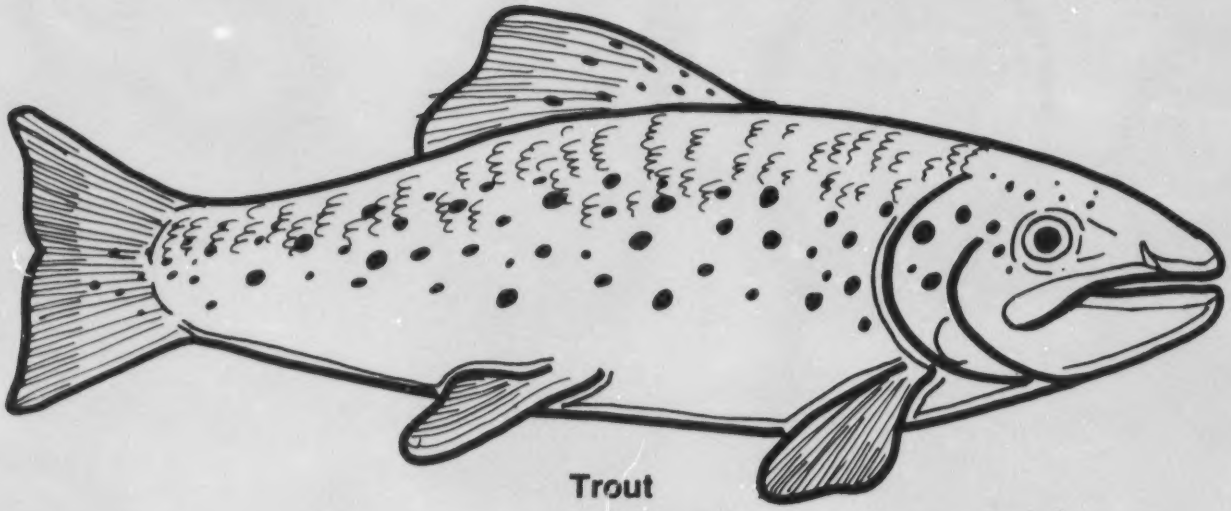

Pig
Lamb

Duck

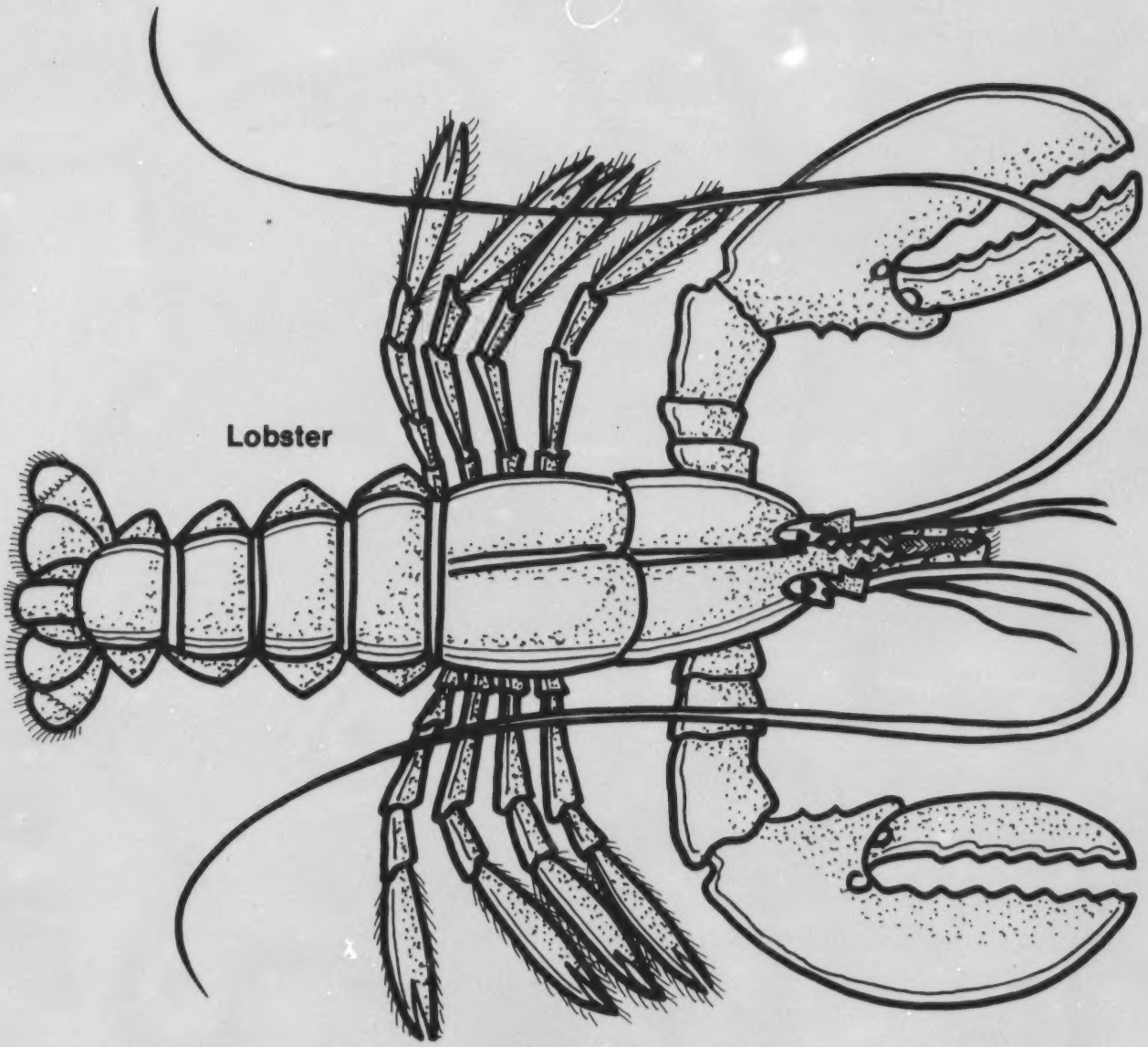
Chicken



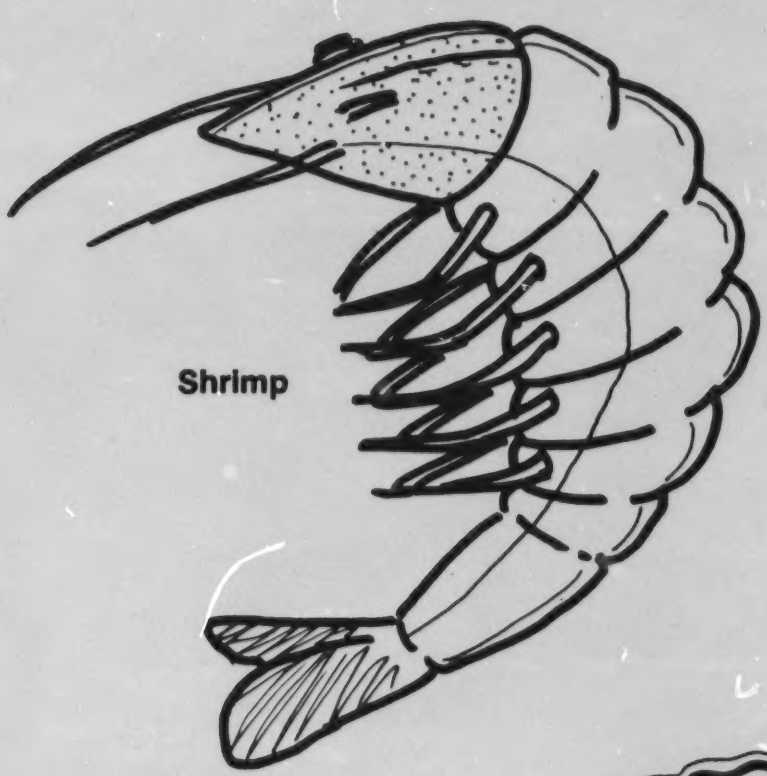
Tuna



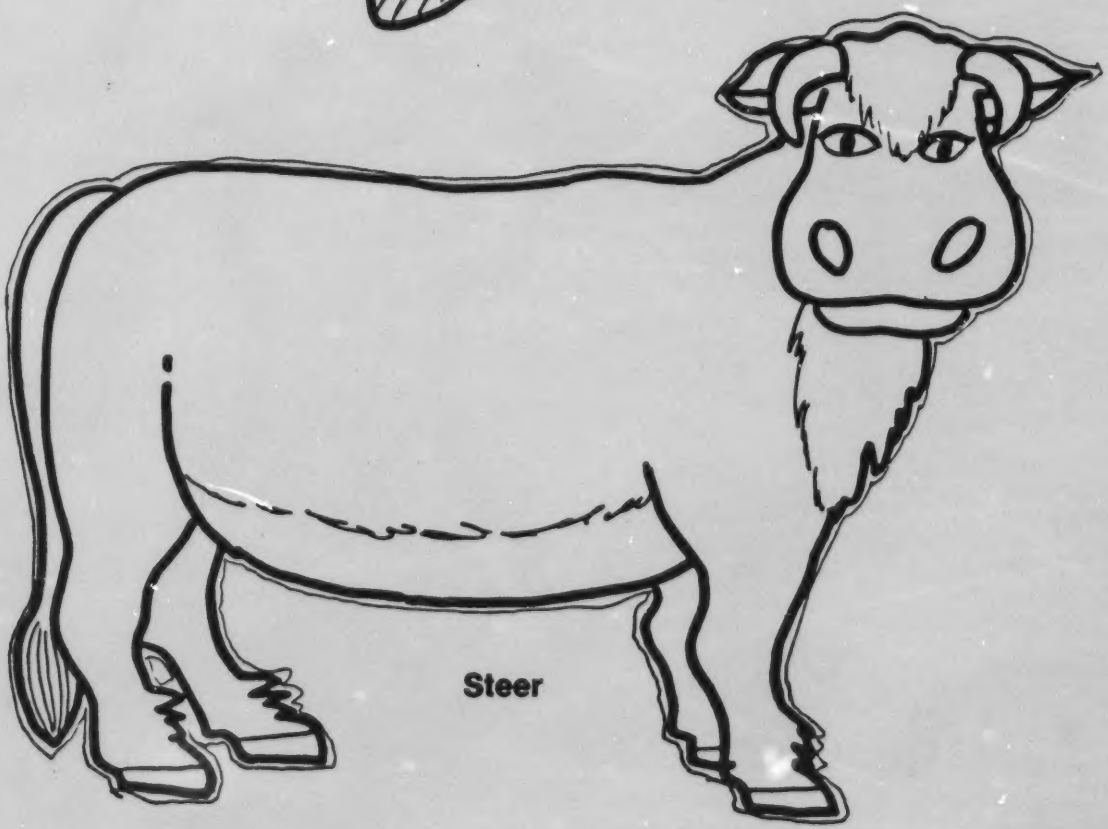
Trout



Lobster



Shrimp

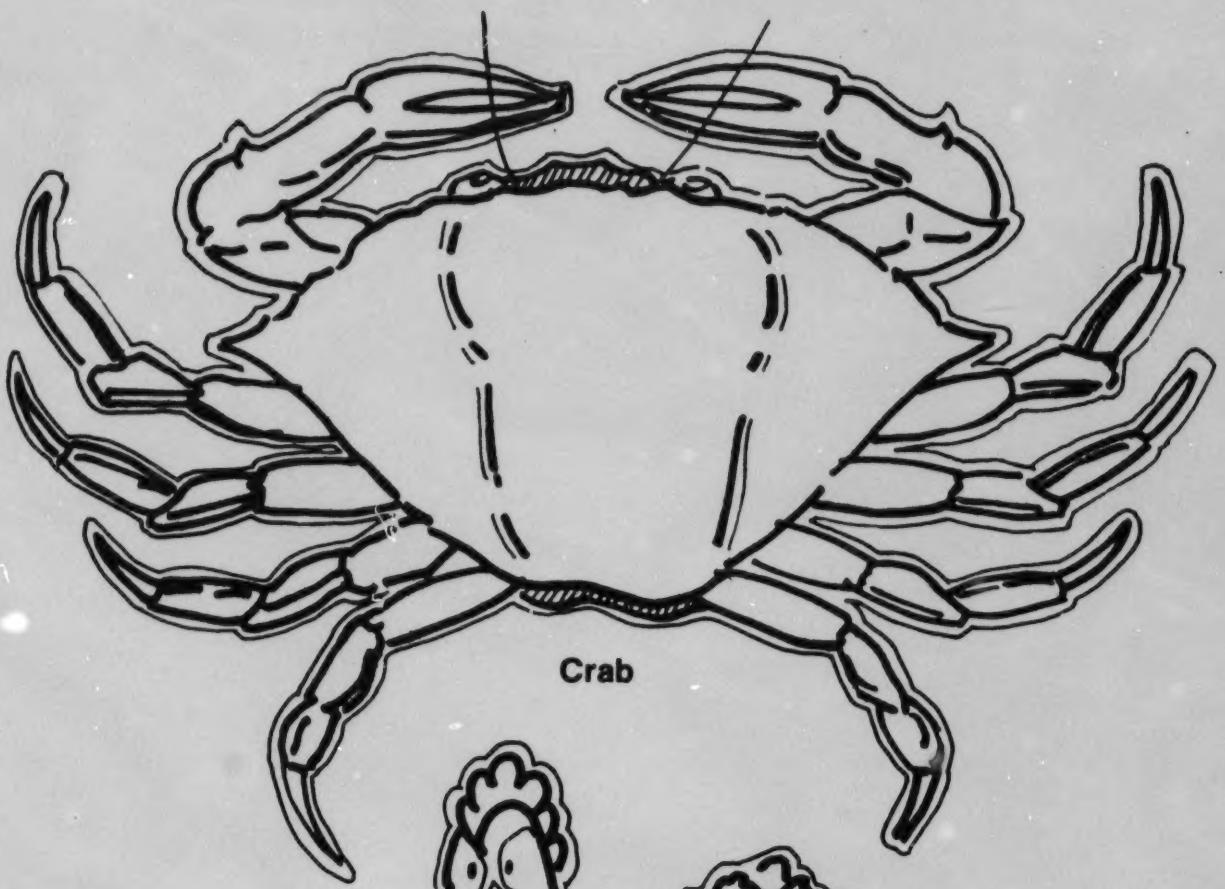


Steer

Goose

Pheasant

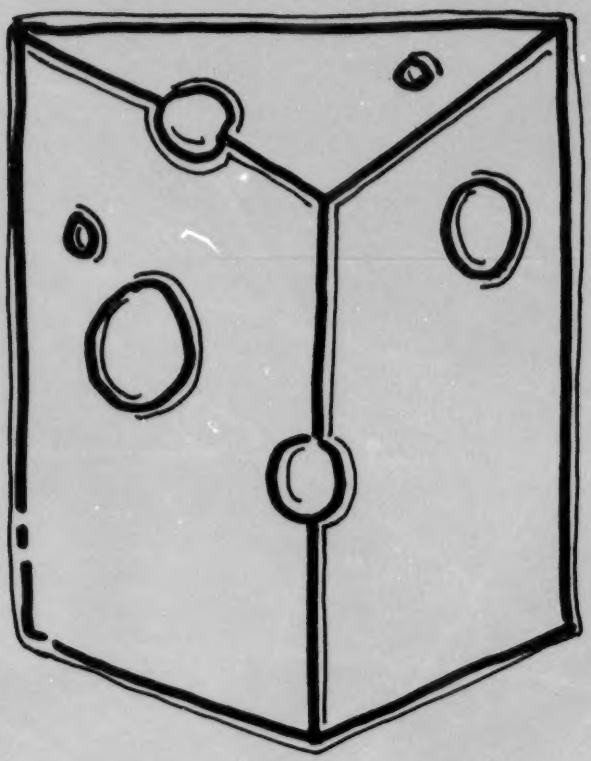
Turkey



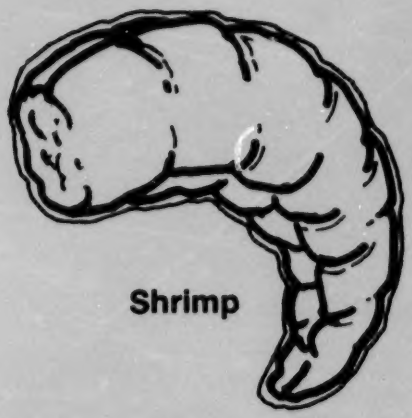
Crab

Nesting Hen

Foods from Animals



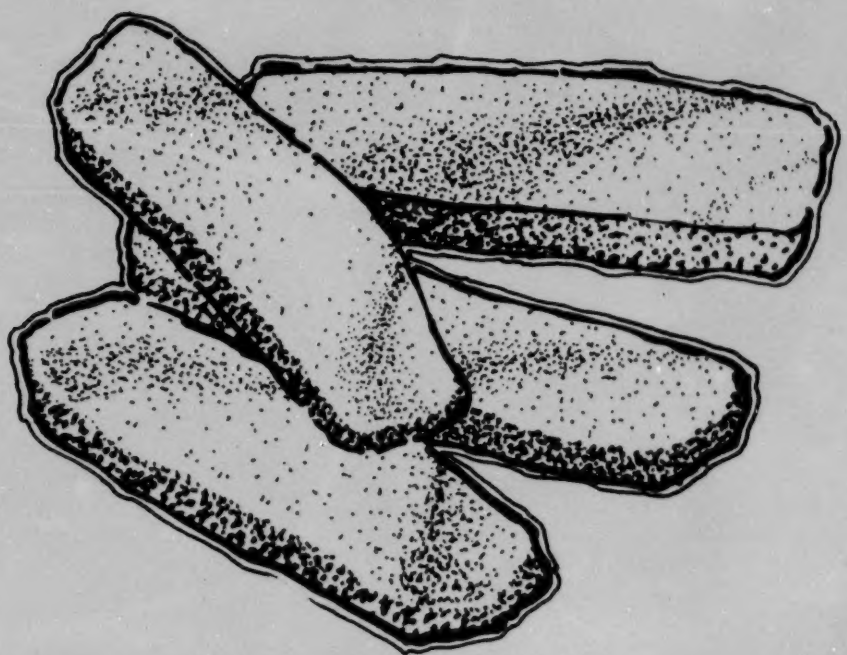
Cheese



Shrimp

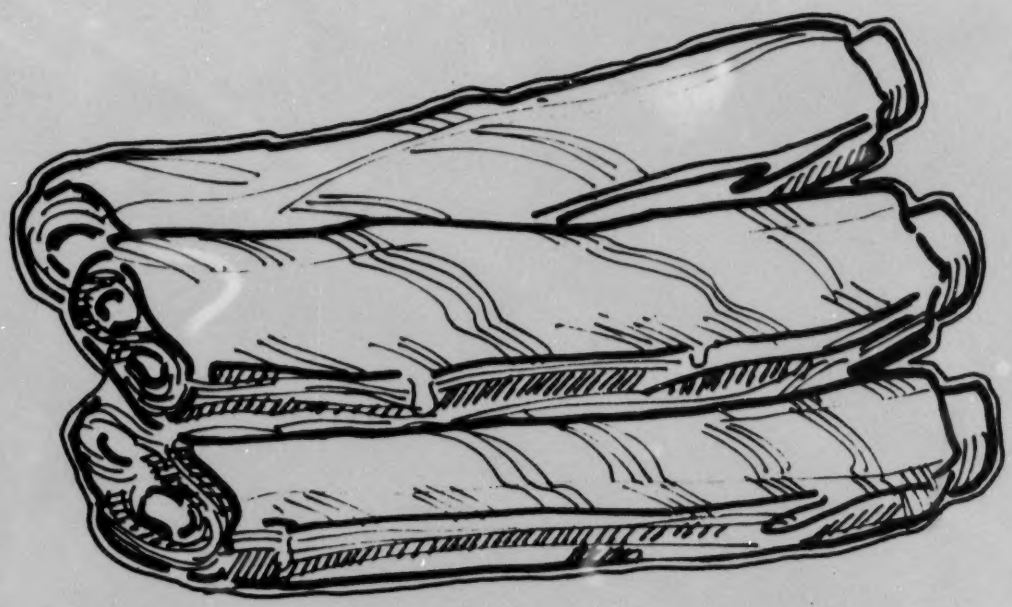
Deviled Eggs

Cottage Cheese

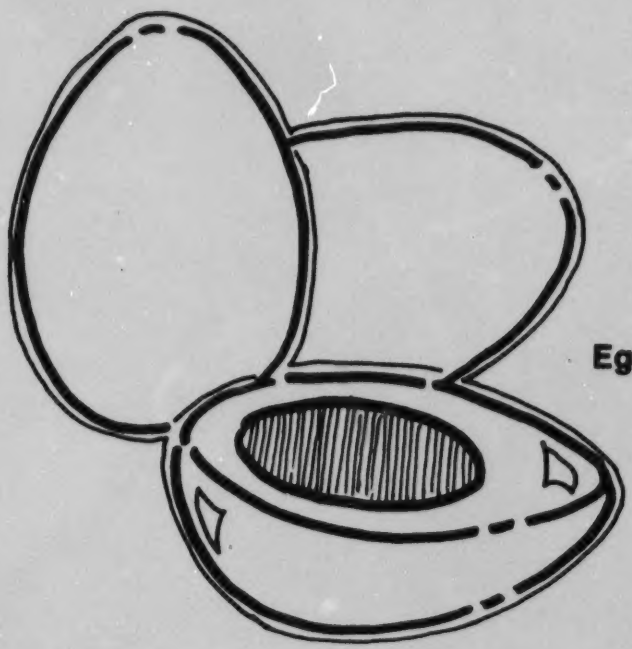


Fish Sticks

Hamburger Patty

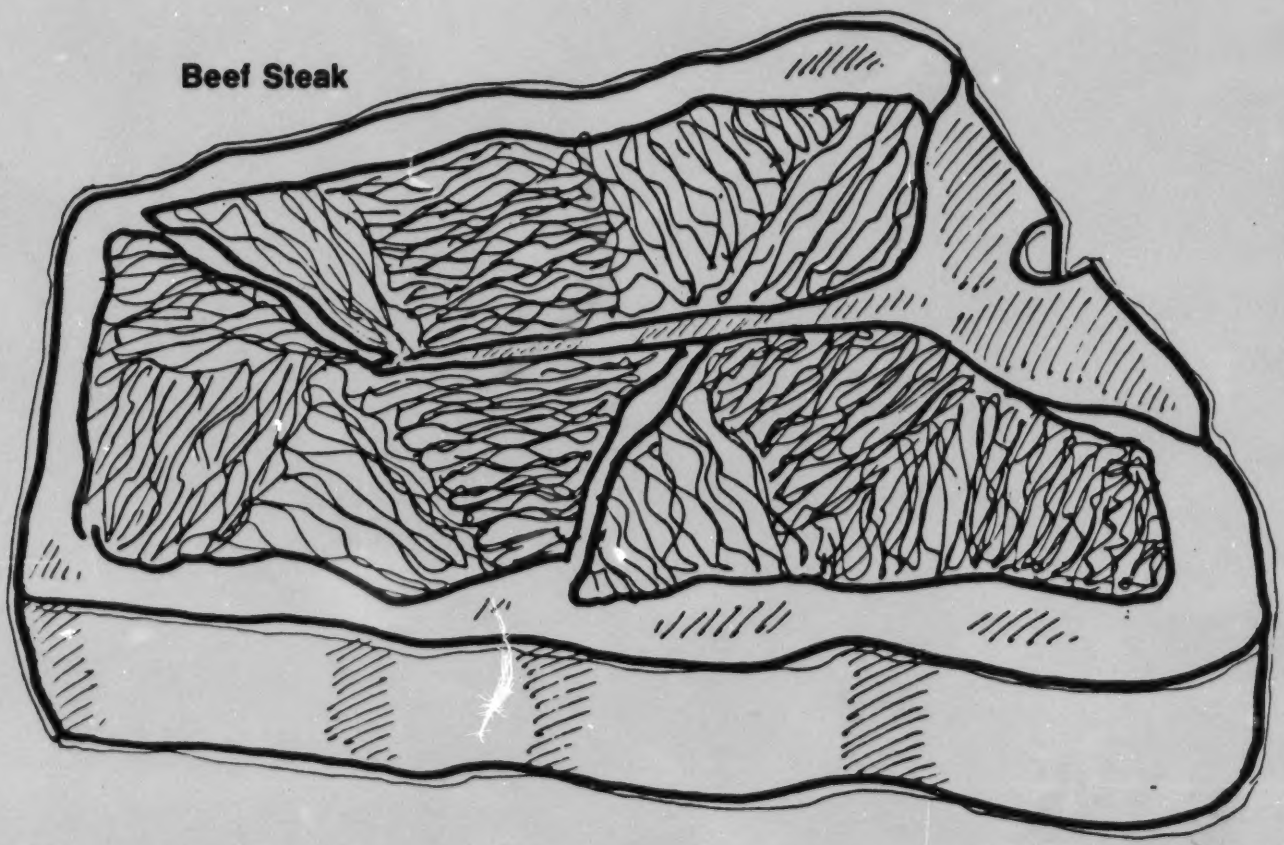


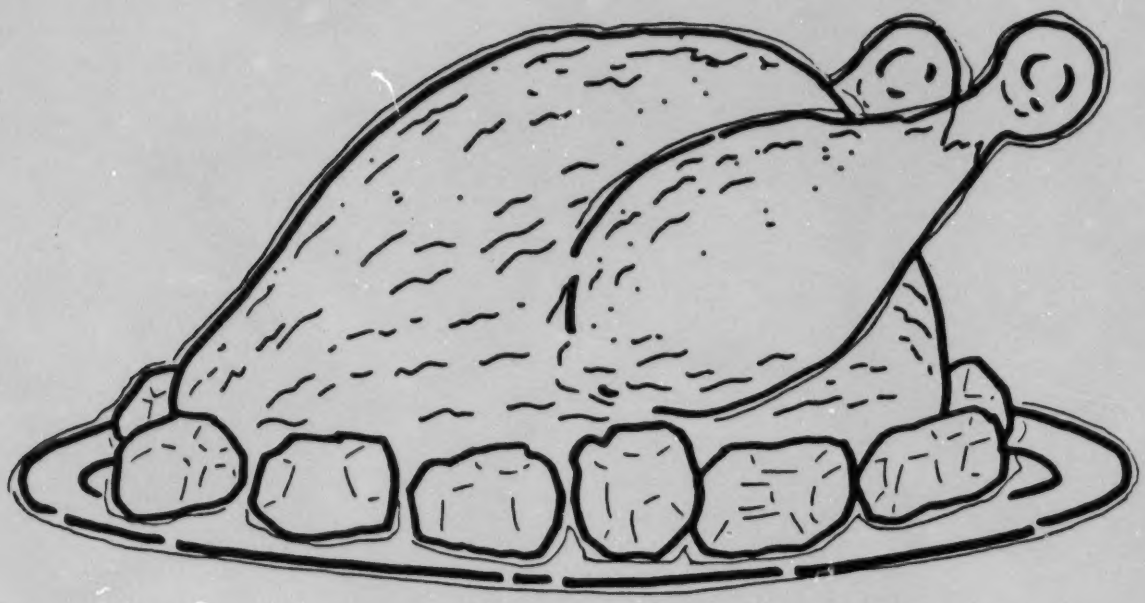
BBQ Ribs



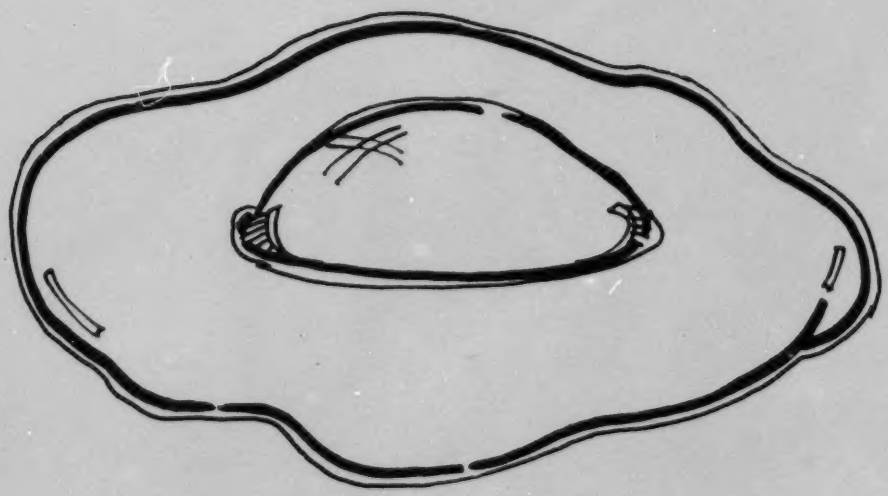
Eggs

Beef Steak

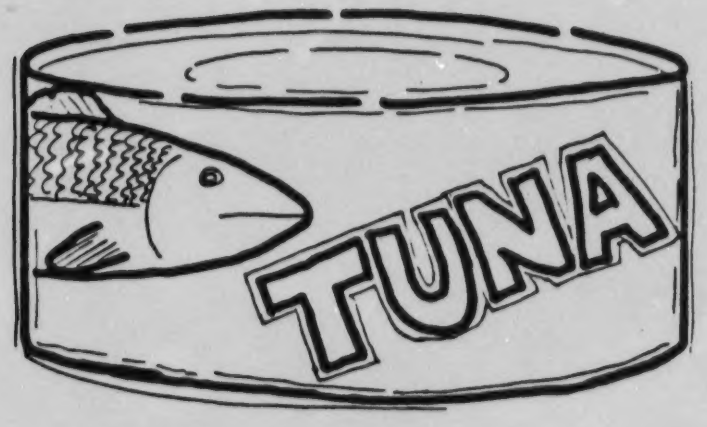




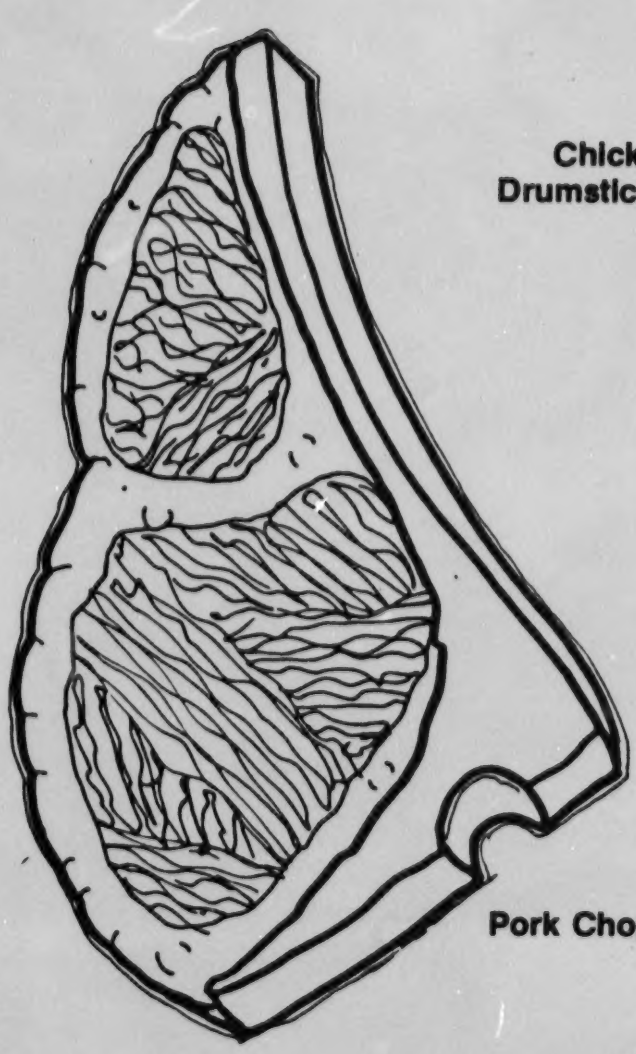
Turkey on a Platter



Fried Egg



Tuna in a Can



Pork Chop

Chicken
Drumstick

Yogurt

Ice Cream

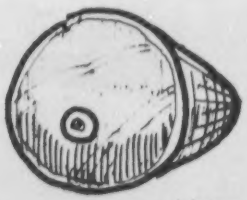
F-17

Animal Classification Playing Board

Meat	Poultry	Milk/Milk Products	Eggs	Fish

F-18

Animal Classification Playing Cards

Hamburger	Milk	Duck	Yogurt	Cottage cheese
Chicken drumstick	Turkey	Shrimp	Fish	Hard cooked eggs
Steak	Fried egg	Ice cream cone	Fish sticks	Roast beef
 Ham	Soft cooked egg	Deviled eggs	Tuna	Fried chicken

F-19

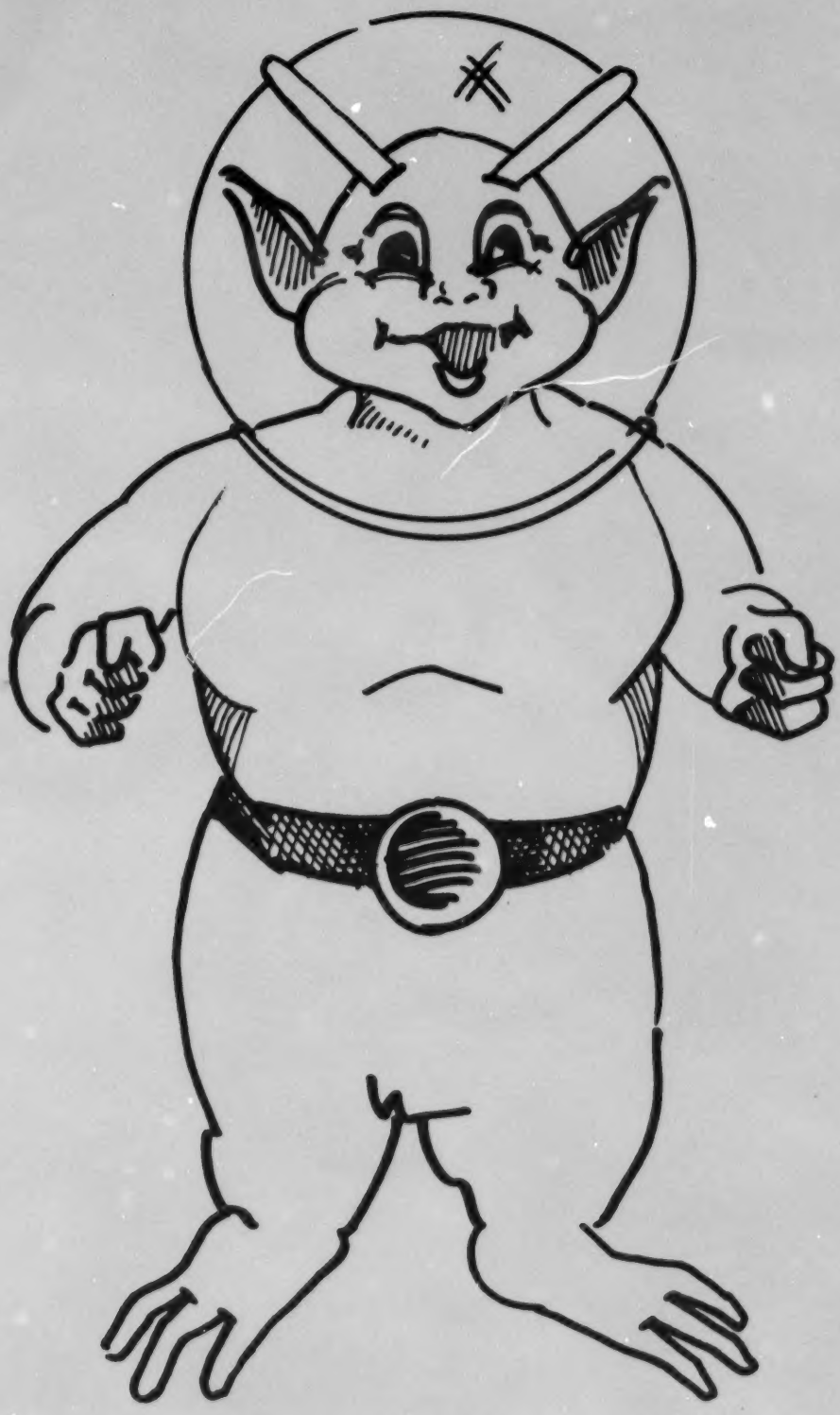
Name _____

Foods from Animals

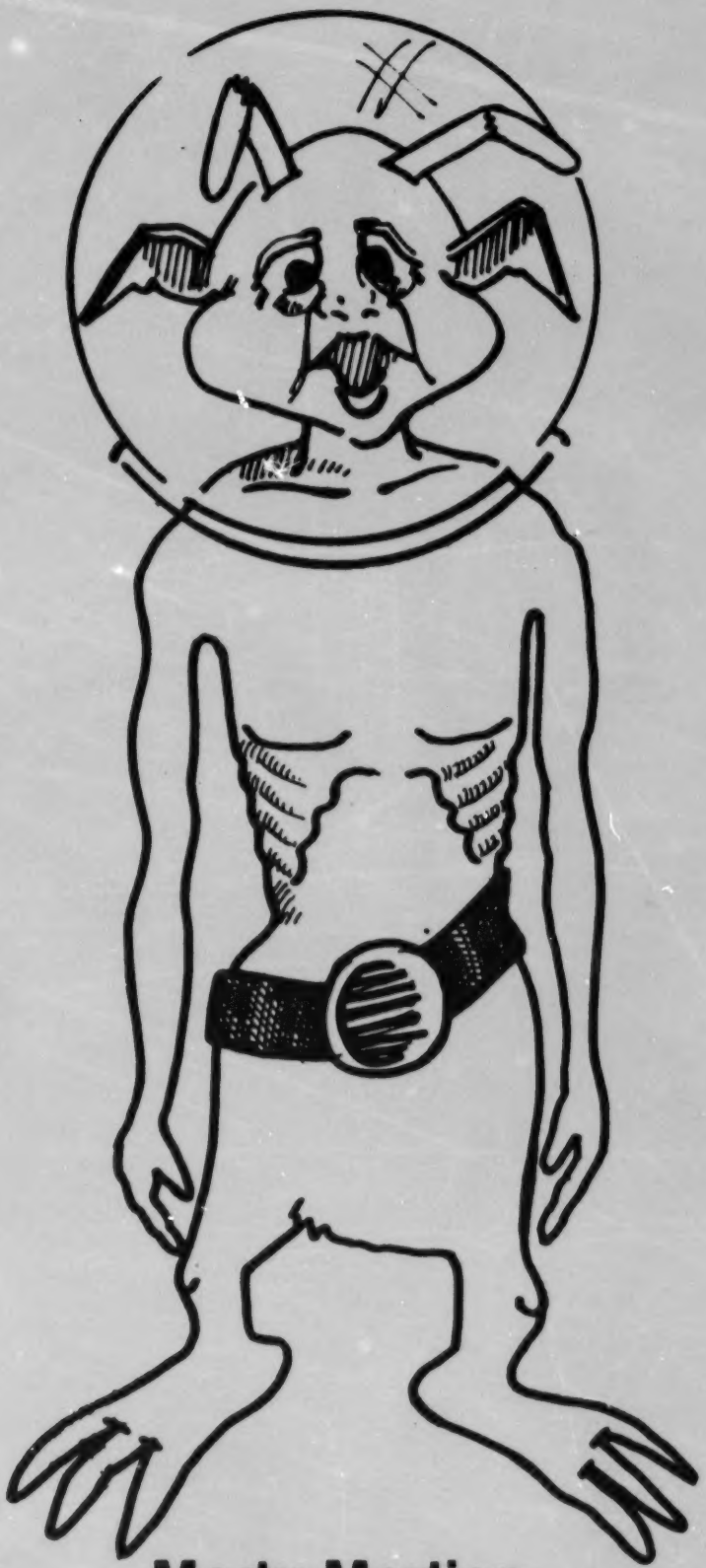
Put an *X* on the food that does not belong. Color the foods that do.

1. Milk	Yogurt	Cottage cheese	Eggs	Cheese
2. Steer	Steak	Hot dog	Hamburger	Apple
3. Fish	Trout	Tuna	Taco	Fish sticks
4. Poultry	Chicken	Duck	Turkey	Milk
5. Eggs	Fried egg	Deviled eggs	Hard cooked eggs	Turkey

F-20

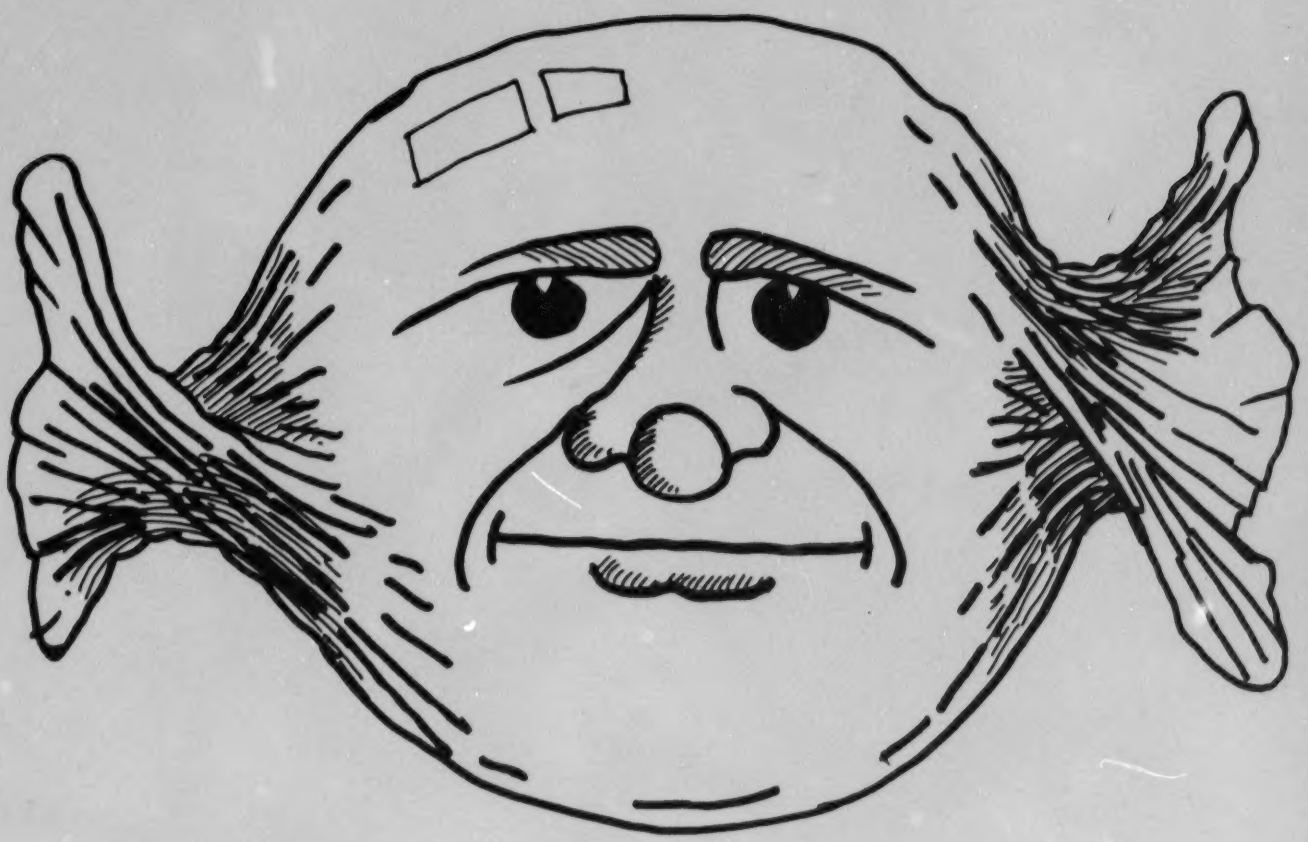


Marty Martian



Marty Martian

Charlie Tooth



Mr. Sweets

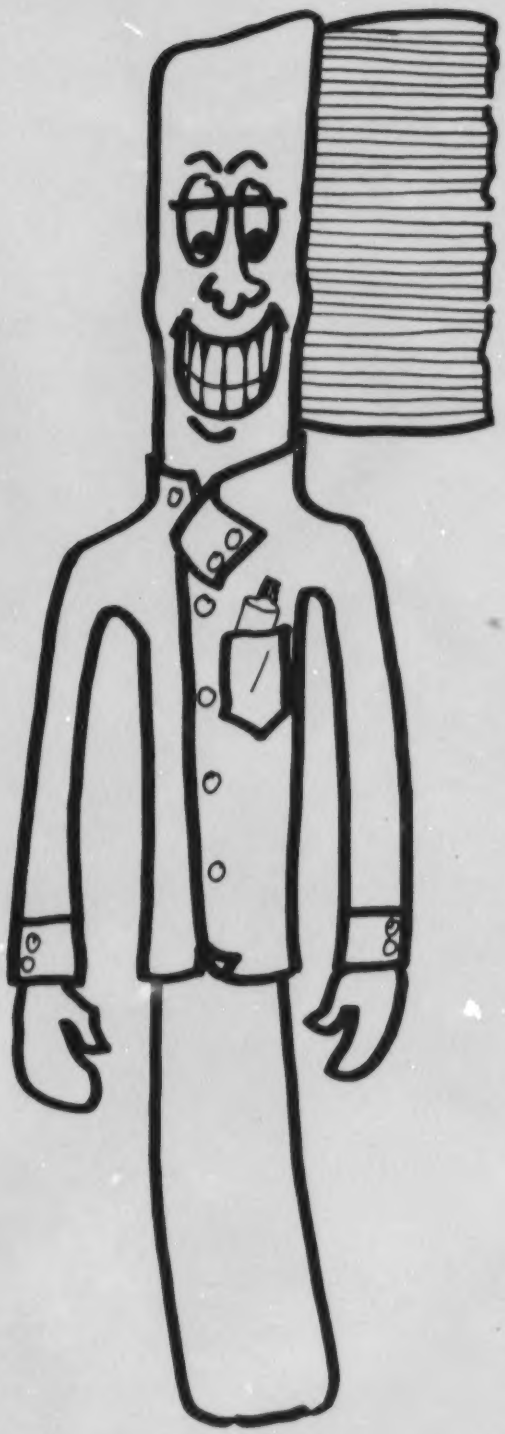
Susie Sucker

F-25

Patty Pop

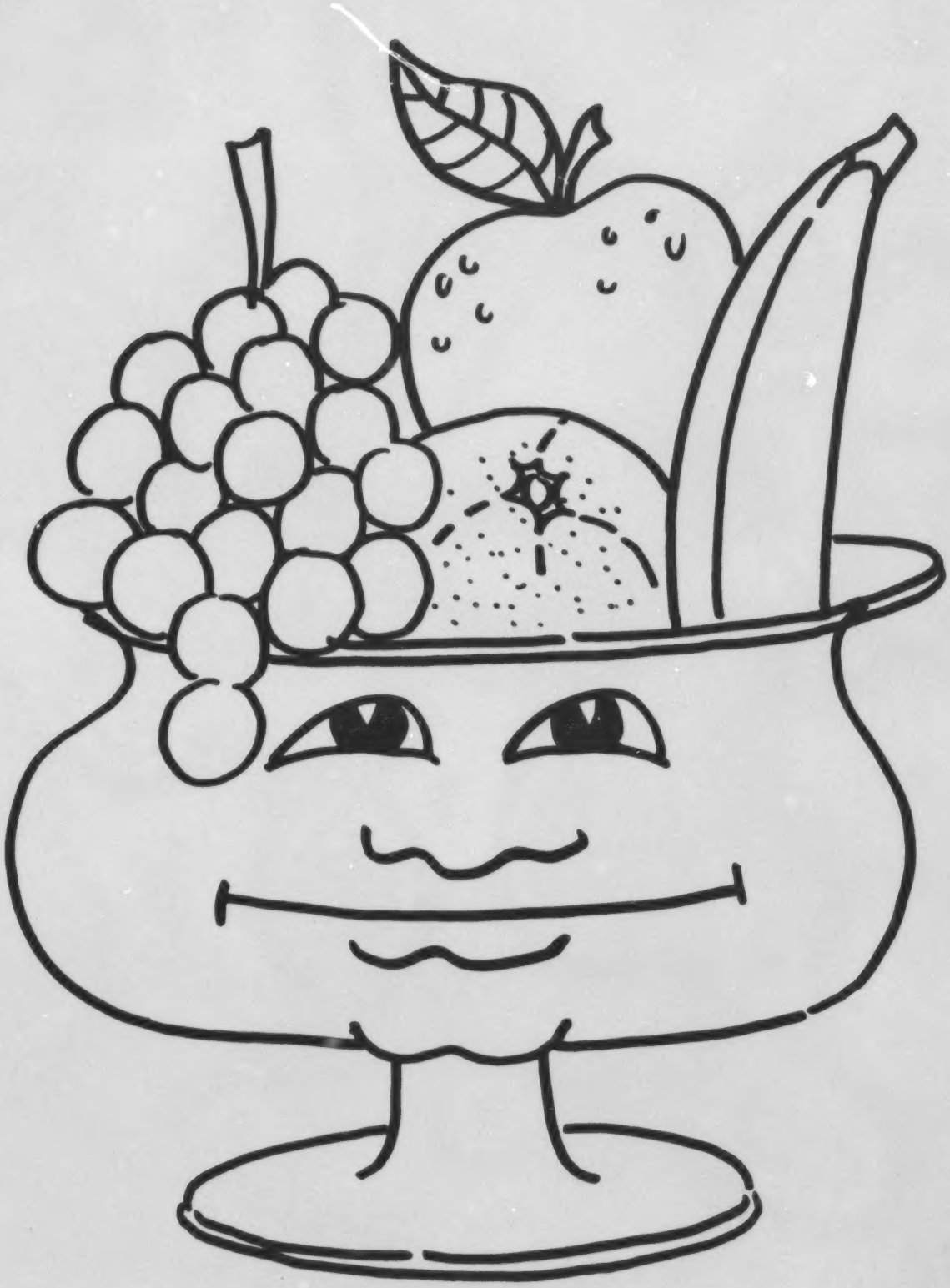
Gregory Gum

Charlie Tooth



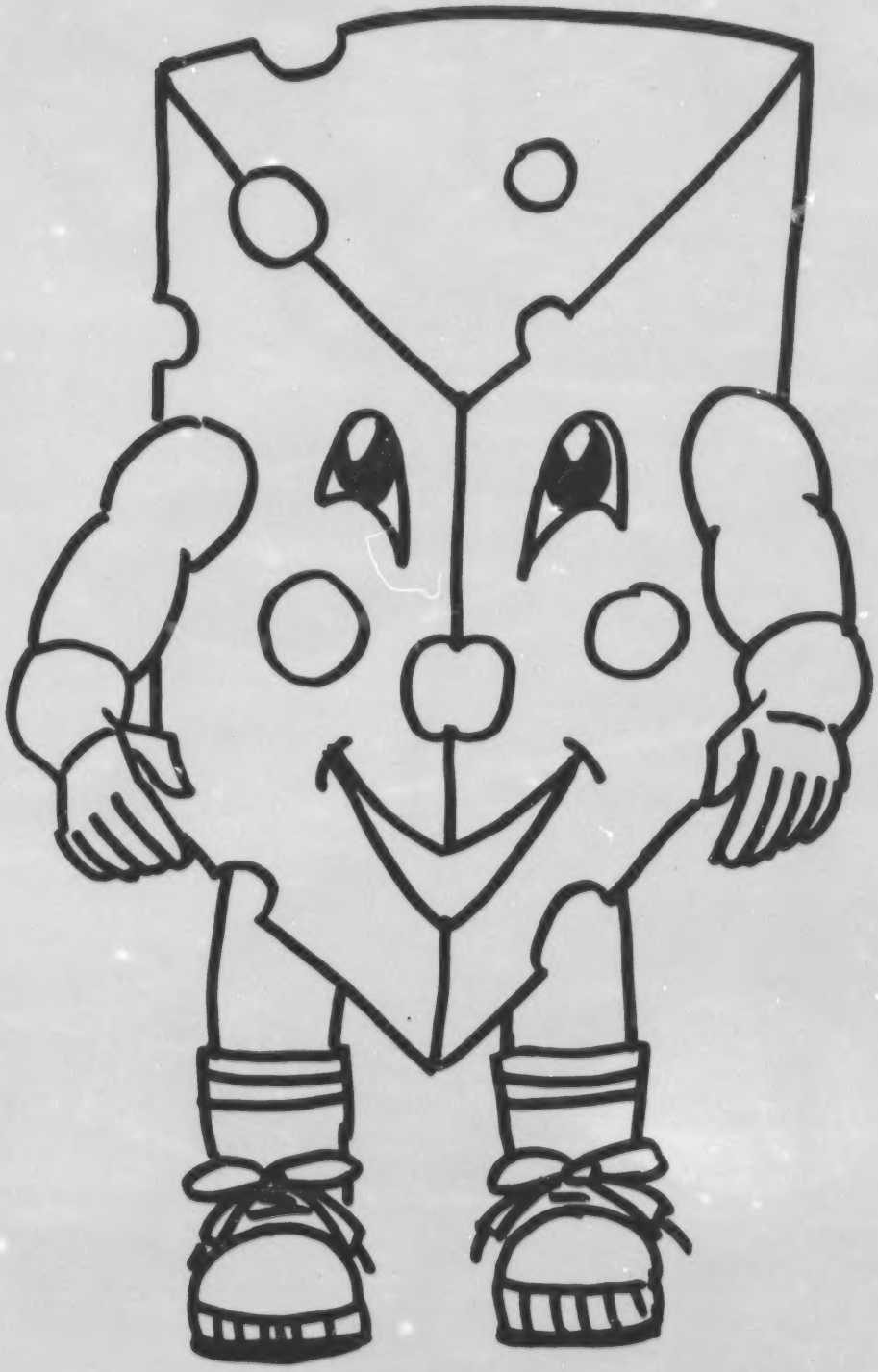
Dr. Brushy

Dr. Pasty



Freddy Fruit

Virginia Vegetable



Charlie Cheese

Michelle Milk

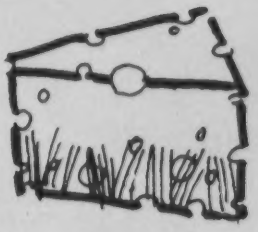
Name _____

Happy Tooth, Sad Tooth

Draw lines from the sad or healthy (happy) tooth to the foods that make it sad or healthy. Color the foods. Make the sad tooth have black caries (poor thing).

Name _____

Healthy Teeth



1. Put an *O* around the foods above that are low in sugar and that make healthy, "happy" teeth.

2. Put an *X* on the foods above that are high in sugar and that make unhealthy, "unhappy" teeth.

3. Choose the right word to fill in the blank below:
   (a) Lines (b) Holes (c) Stars

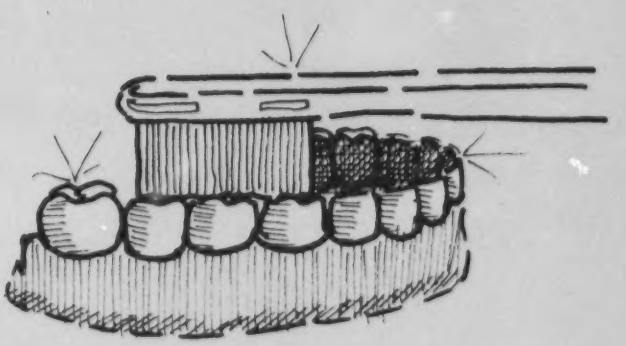
   Too many foods with lots of sugar make_____in your teeth.

4. Choose the right word to fill in the blank below.
   (a) Brush (b) Comb (c) Pull

   We can help keep our teeth healthy if we_____our teeth after we eat.

Name _____

Tips for Healthy Teeth



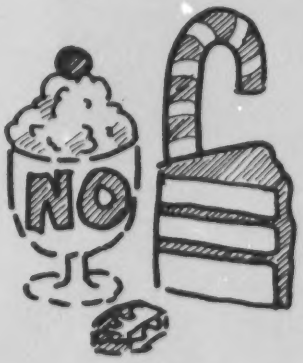
1. Brush your teeth thoroughly (outside, inside, and across the tops where you chew).

2. Use a soft nylon toothbrush (unless your dentist requests that you use another kind).

3. Use a toothpaste that has the seal shown here.

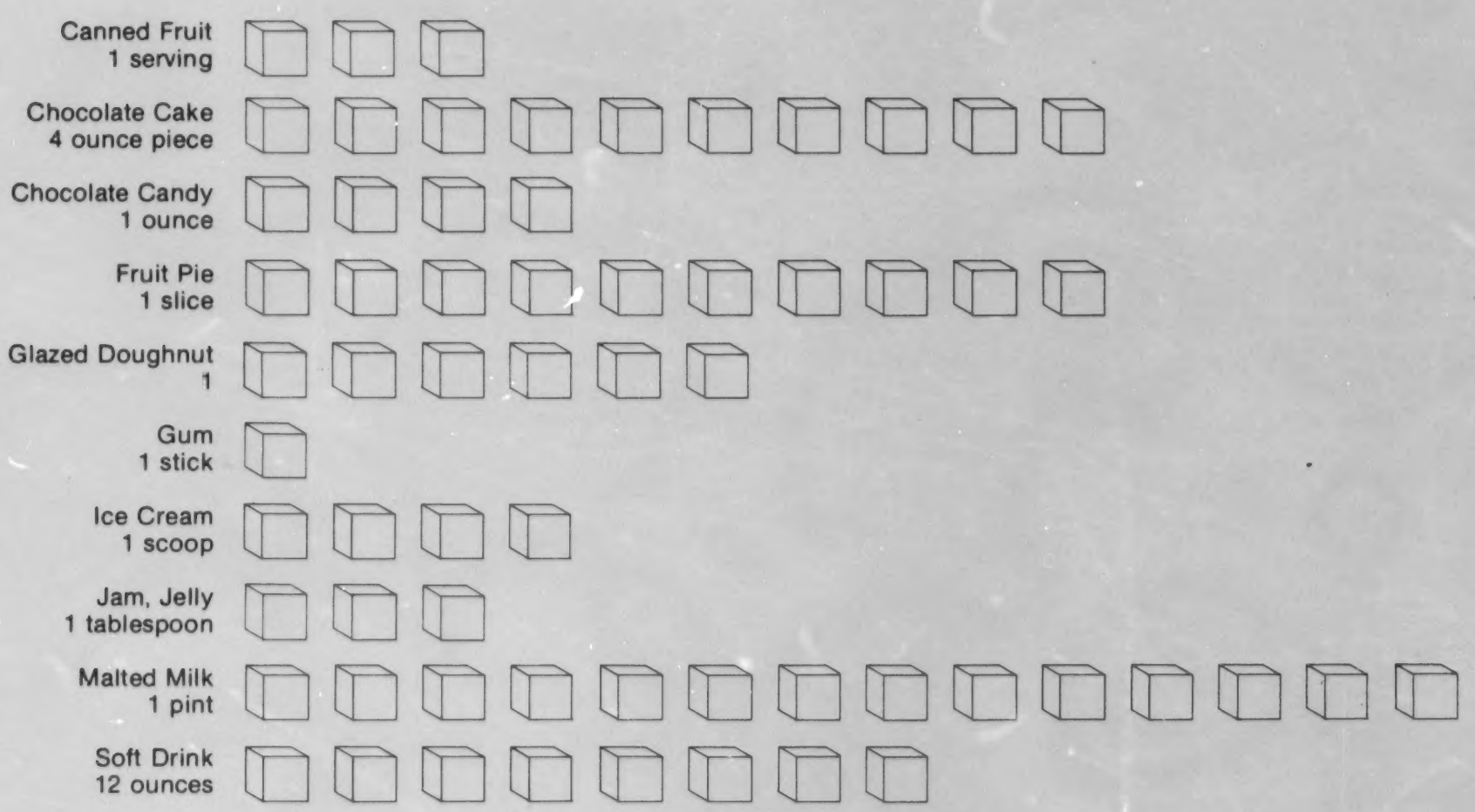
4. Visit the dentist twice a year.

5. Do not eat a lot of sweet snacks, candy, and sugars.



6. Eat healthful foods like fruits, vegetables, meat, and milk.

Hidden Sugar in Foods



F-36

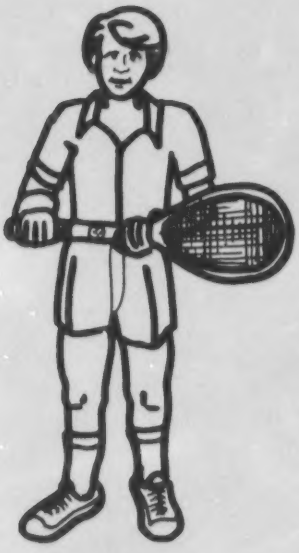
Low Sugar Foods Quiz

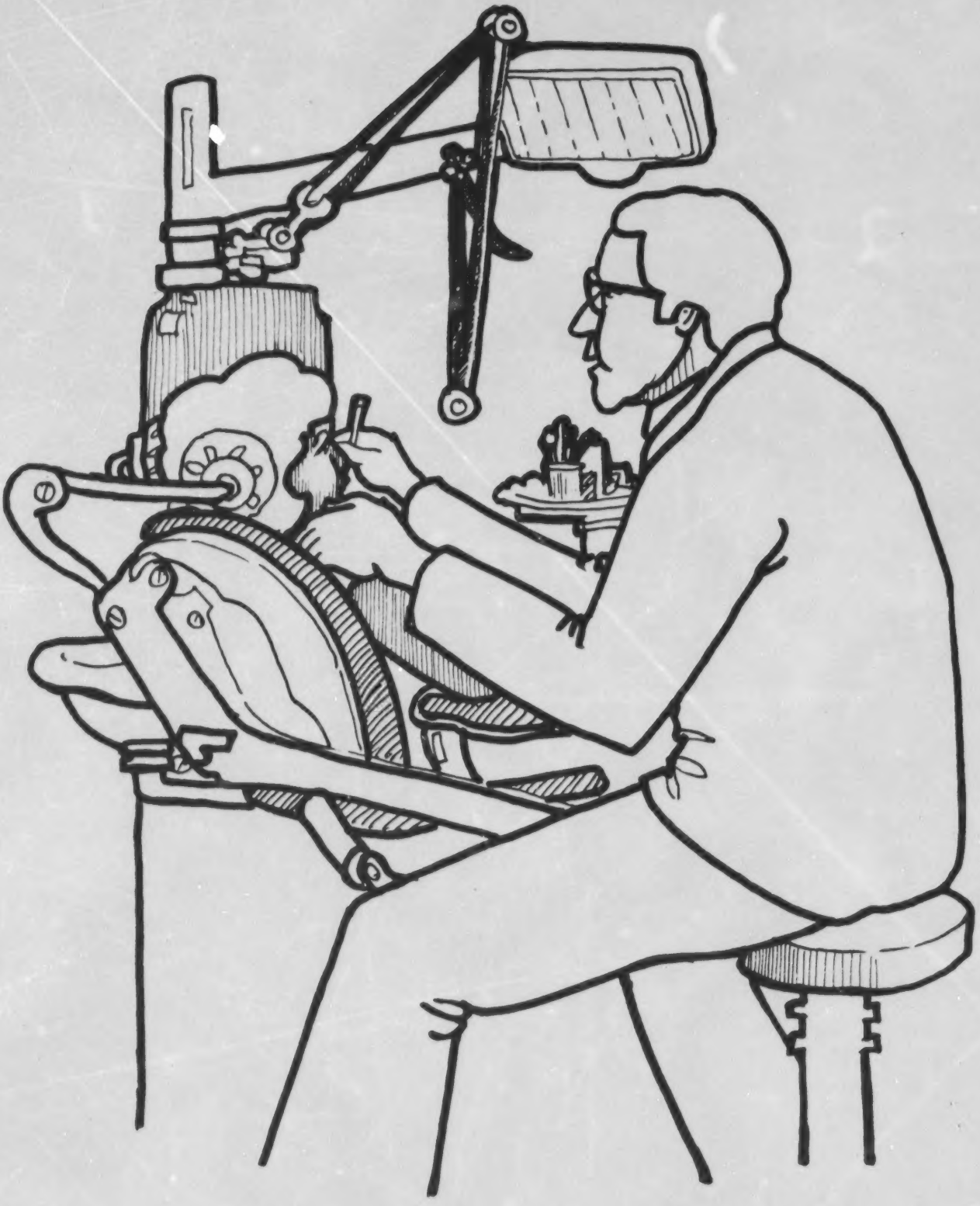
1. Candy is a low sugar food. (No)
2. Cheese is a low sugar food. (Yes)
3. A carrot is a high sugar food. (No)
4. Pie is a high sugar food. (Yes)
5. Cupcakes are a high sugar food. (Yes)
6. Nuts are a low sugar food. (Yes)
7. Cookies are a low sugar food. (No)
8. Oranges are a high sugar food. (No)
9. Fudge is a low sugar food. (No)
10. Dried fruit is a low sugar food. (No)
11. Celery sticks are a low sugar food. (Yes)
12. Gum is a high sugar food. (Yes, unless it is a sugar-free variety.)
13. Strawberries are a high sugar food. (No)
14. Candy bars are a high sugar food. (Yes)
15. Cauliflower is a low sugar food. (Yes)
16. Fruit pies are a low sugar food. (No)
17. Chocolate cake is a high sugar food. (Yes)
18. Fruit turnovers are a high sugar food. (Yes)
19. Crackers are a low sugar food. (Some are; some are not.)
20. Cola is a low sugar food. (No)

Name _____

A Healthy You

Put an *X* on the health concerns.





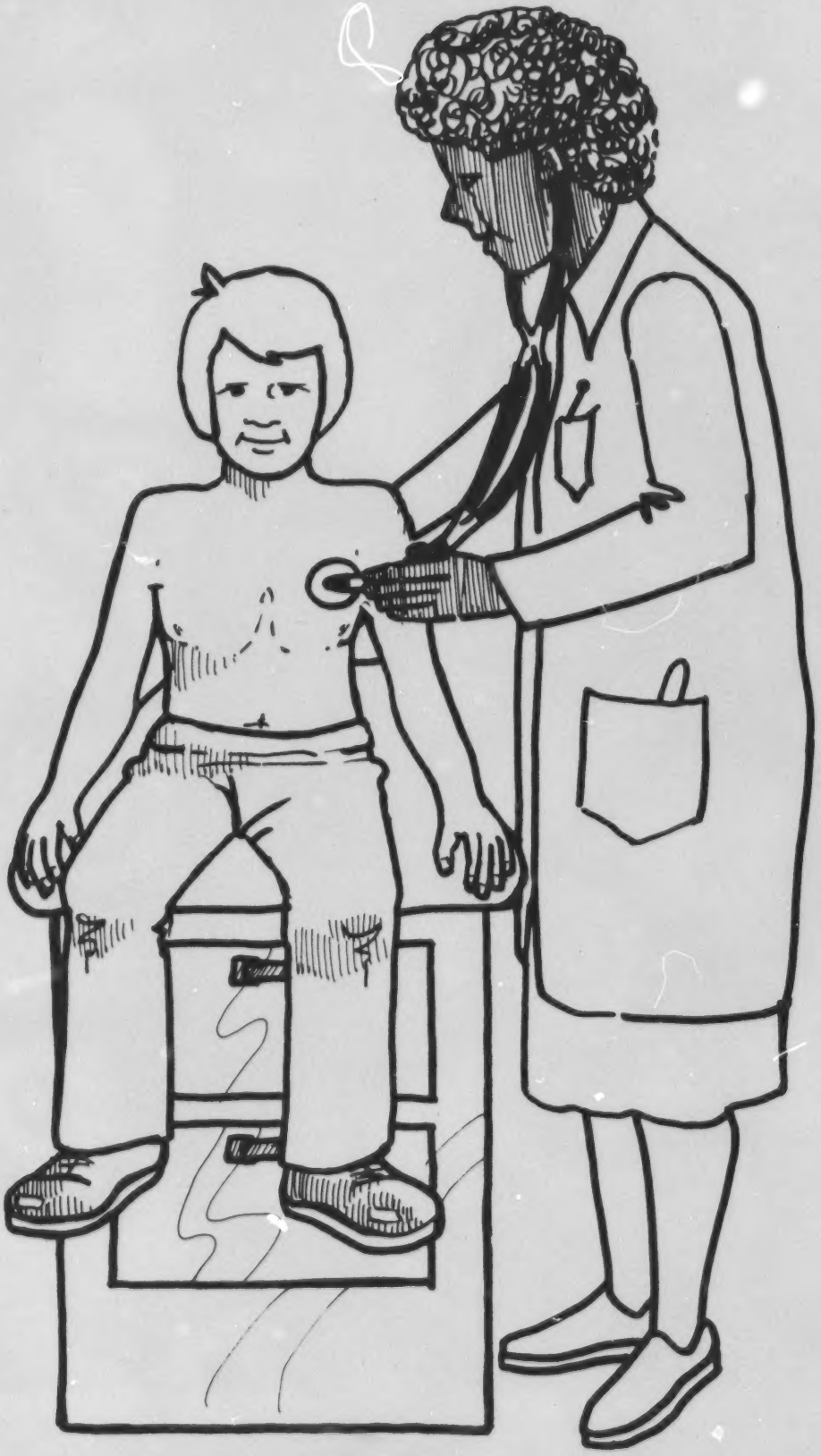
A dentist checks teeth.

F-39

A dental hygienist cleans teeth.

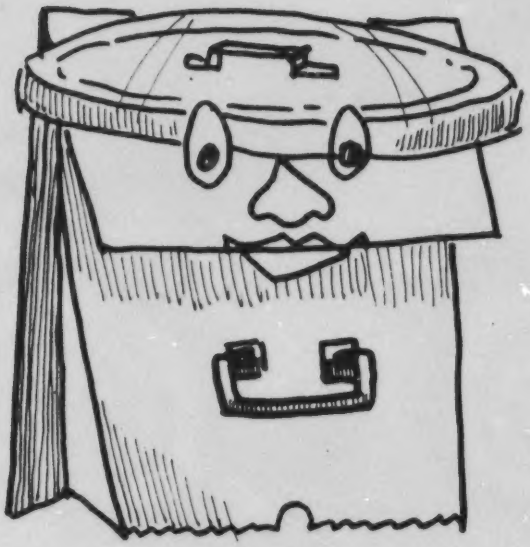
Nurse

F-41

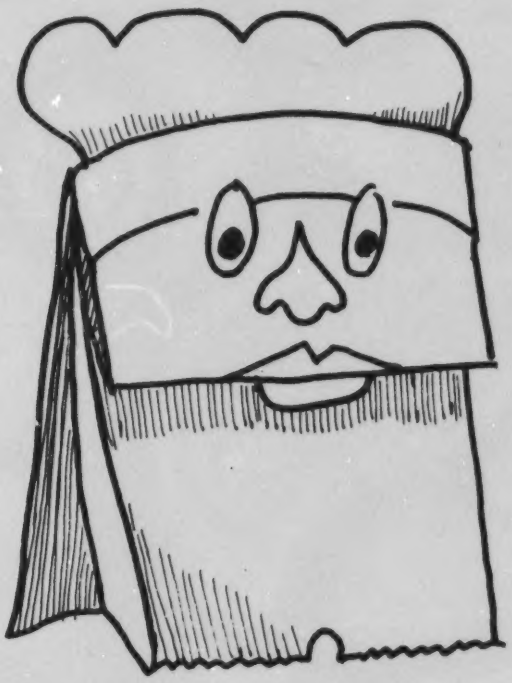


Doctor

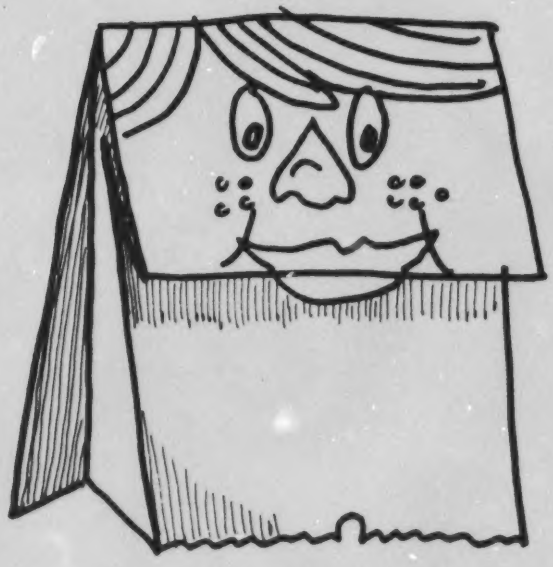
Paper Bag Puppets



Tandy Trash can



Mandy Manager



Willy Wasteless

Wanda Wasteless

Name _____

Lunch Area Environment

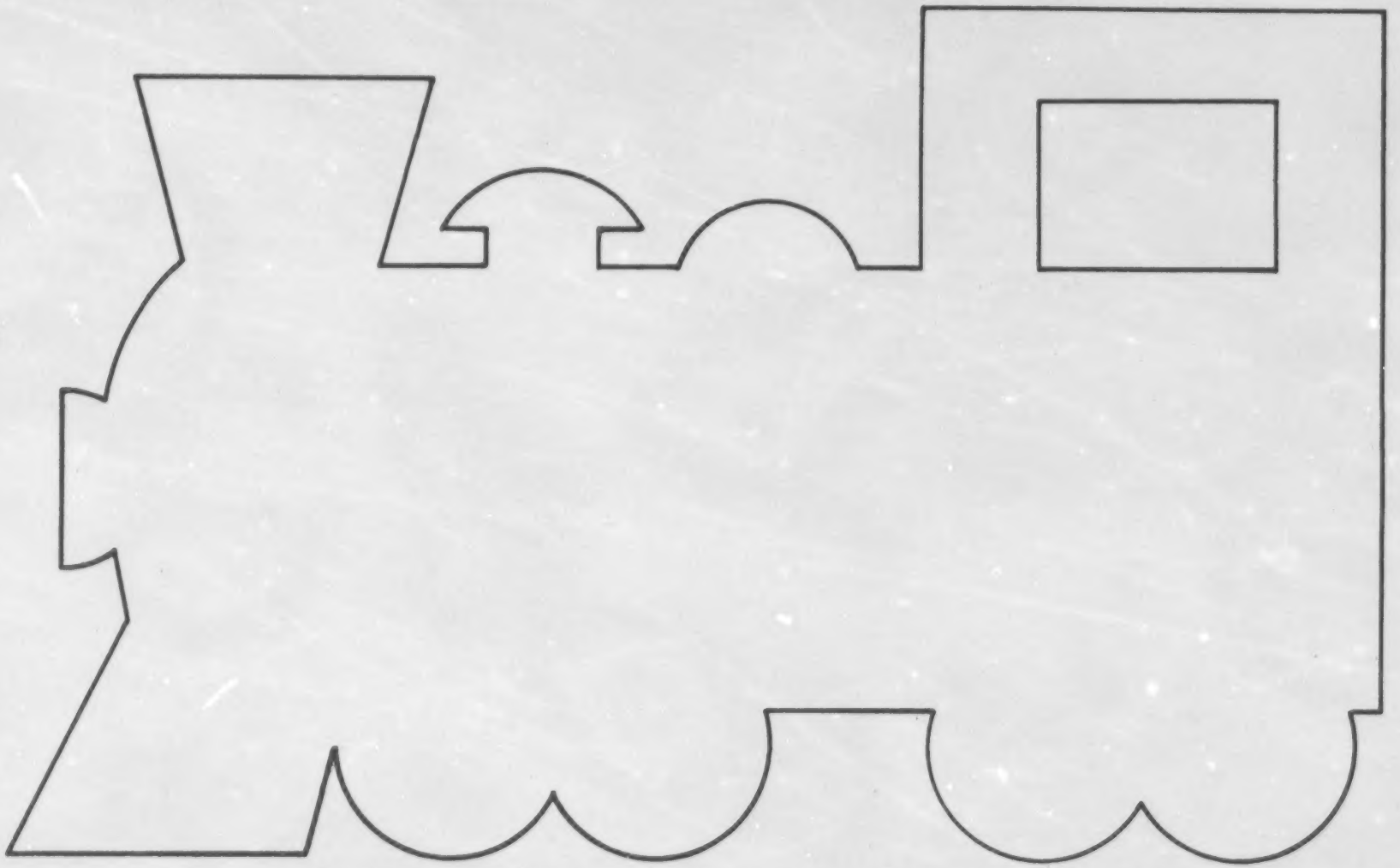
Match Opposites.

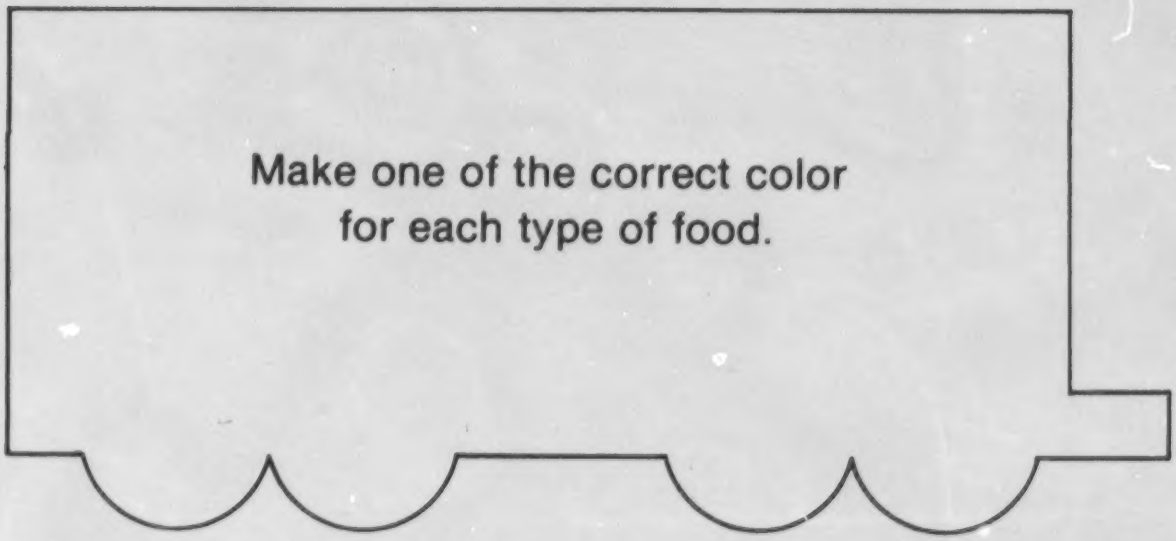
Clean	Unpleasant
Quiet	Eat Too Fast
Pleasant	Dirty
Eat Slowly	Noisy

Circle the words that make eating more enjoyable.

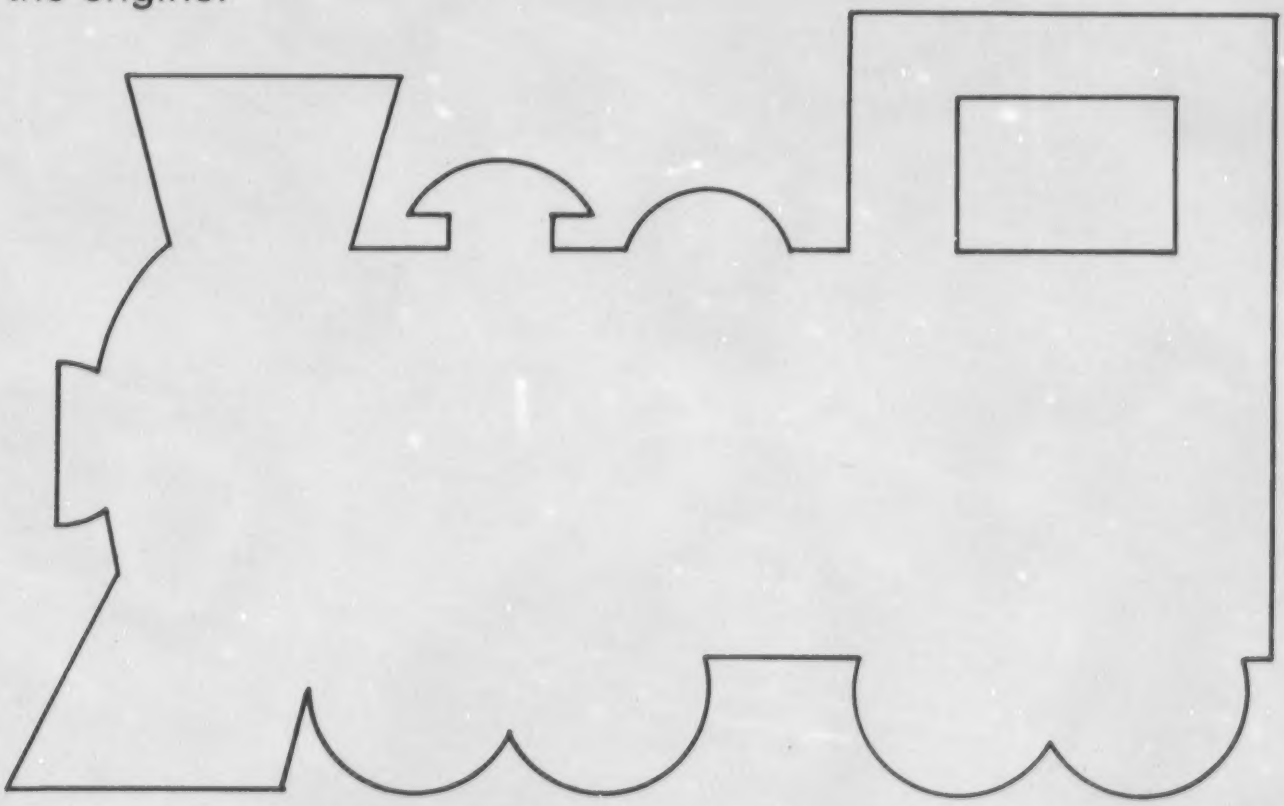
Good Health Train

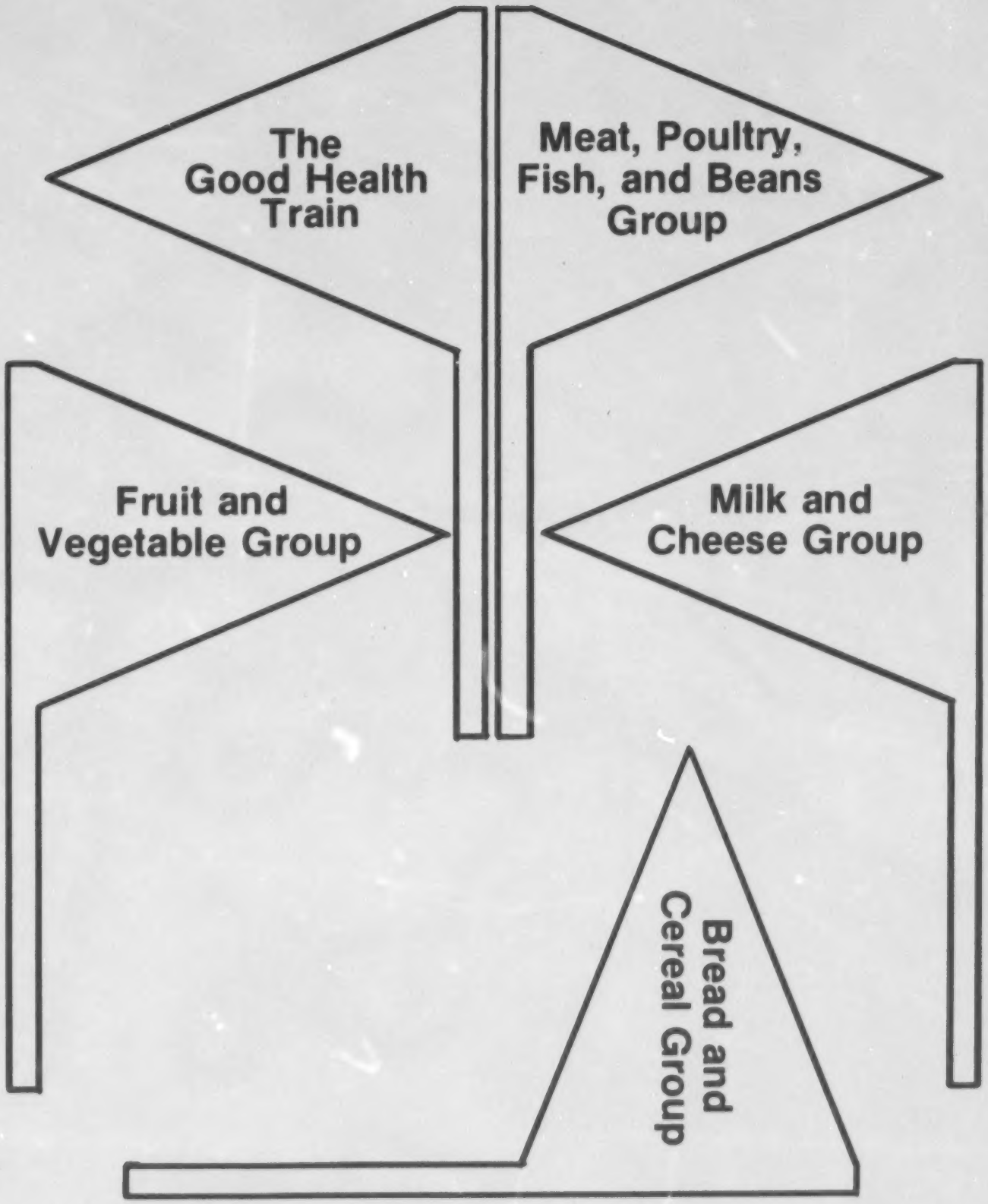
From construction paper cut a black engine with a white flag that says,"Good Health Train," and five cars that have the colors and flags mentioned in the story. Also cut a large engine from black construction paper. Put these cutouts on the flannel board as the story is told.



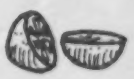
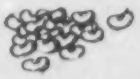


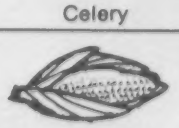
Make banners for each car on the good health train and one for the engine.

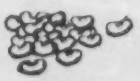



The
Good Health
Train
Meat, Poultry,
Fish, and Beans
Group
Fruit and
Vegetable Group
Milk and
Cheese Group
Bread and
Cereal Group

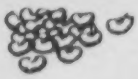
Food Groups Bingo Cards

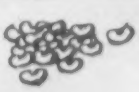
Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Milk	Roast beef	 Orange	Rice	Cake
Ice cream	 Dried beans	Carrots	Noodles	Oil
Cheddar cheese	Ham	Broccoli	Muffin	Jelly
Custard		Asparagus	Whole wheat roll	Doughnut
Swiss cheese	Liver	Peach	White bread	Cookie

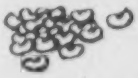
Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Swiss cheese	Beef patty	Bananas	Crackers	Butter
Cottage cheese	Chicken leg	Apple	Hamburger bun	Potato chips
Yogurt	Lamb chop	Cantaloupe	Whole wheat bread	Pie
Custard	Fish	Celery		Salad dressing
Milk	Eggs	 Corn	Spaghetti	Soft drink

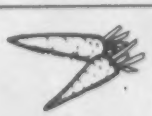
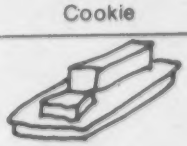
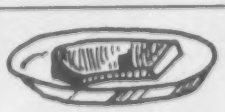
Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Custard	Turkey	Asparagus	Hamburger bun	Soft drink
Yogurt	Eggs	Carrots	Tortilla	Pie
Ice cream cone		Celery	Crackers	Cookie
Swiss cheese	 Dried beans	Cantaloupe	White bread	Oil
Cheddar cheese	Chicken leg	Peach	Whole wheat bread	Potato chips

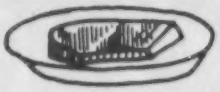
Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Ice cream	Ham	Orange	Rice	Salad dressing
Cottage cheese	Fish	Corn	Spaghetti	Cake
Yogurt	Liver	Broccoli	Muffin	Butter
	Roast beef	Bananas	Noodles	Doughnut
Milk	Lamb chop	Apple	Whole wheat roll	Jelly

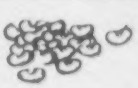
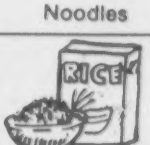
Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Milk	Beef patty	Cantaloupe	Tortilla	Pie
Cottage cheese	 Dried beans	Peach	Rice	Cake
Yogurt	Turkey	Carrots	Noodles	Cookie
Ice cream	Chicken leg	Celery	White bread	Doughnut
Swiss cheese		Bananas	Whole wheat bread	Oil

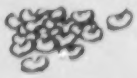
Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Cheddar cheese	Eggs	Carrots	Muffin	Salad dressing
Milk	Roast beef		White bread	Butter
Ice cream cone	Lamb chop	Asparagus	Hamburger bun	Potato chips
Custard	Liver	Broccoli	Crackers	Jelly
Yogurt	 Dried beans	Orange	Spaghetti	Soft drink

Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Custard	 Dried beans	Asparagus	Noodles	Jelly
Yogurt	Roast beef	Bananas	Whole wheat bread	Doughnut
Ice cream	Lamb chop	Broccoli	Spaghetti	
Milk	Turkey	Apple	Rice	Cake
Swiss cheese	Chicken leg	Cantaloupe	White bread	Pie

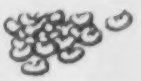
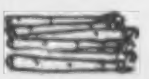
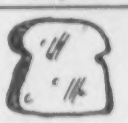
Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Cheddar cheese	Ham	 Carrots	Whole wheat roll	Oil
Cottage cheese	Fish		Tortilla	Cookie
Milk	Eggs	Celery	Hamburger bun	 Butter
Swiss cheese	 Liver	Orange	Crackers	Soft drink
Yogurt	Beef patty	Peach	Muffin	Salad dressing

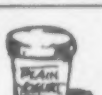
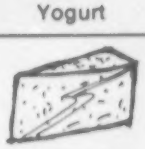
Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Custard	 Liver	Corn	Crackers	Oil
Yogurt	Lamb chop	Cantaloupe	Hamburger bun	Pie
	Chicken leg	Celery	Spaghetti	Soft drink
Ice cream cone	Fish	Bananas	Whole wheat roll	Cookie
Milk	Beef patty	Apple	White bread	Jelly

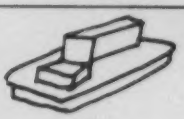
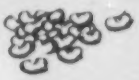
Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Milk	Eggs	Peach	Muffin	Doughnut
Yogurt	Ham	Carrots	Noodles	Potato chips
Cottage cheese	 Dried beans	Corn	 Rice	
Swiss cheese	Roast beef	Orange	Whole wheat bread	Butter
Cheddar cheese	Turkey	Broccoli	Tortilla	Cake

Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Yogurt	 Dried beans	Celery	Rice	Potato chips
Milk	Eggs	Cantaloupe	Whole Wheat Roll	Cookie
Swiss cheese	Liver	Peach	Noodles	Soft drink
Cheddar cheese	Turkey	Broccoli	Muffin	Jelly
Custard	Chicken leg	Corn		Pie

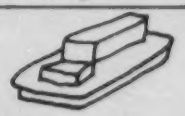
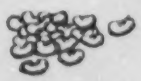
Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Milk	Fish	Orange	Spaghetti	Oil
Cottage cheese	Roast beef	Asparagus	White bread	Salad dressing
Custard	Ham		Crackers	Doughnut
Ice cream cone	Lamb chop	Bananas	Tortilla	Butter
Cheddar cheese	Beef patty	Carrots	Whole wheat bread	Cake

Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Ice cream	Beef patty	Corn	Whole wheat roll	Cake
Swiss cheese	 Dried beans	Orange	Noodles	Potato chips
Cottage cheese	Eggs		Muffin	Cookie
Yogurt	Liver	 Asparagus	Spaghetti	Soft drink
Milk	Turkey	Bananas	 White bread	Jelly

Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Cottage cheese	Chicken leg	Carrots	Crackers	
Custard	Fish	Celery	Tortilla	Pie
Ice cream	Roast beef	Cantaloupe	Whole wheat bread	Oil
 Yogurt	Ham	Peach	Rice	Salad dressing
 Cheddar cheese	Lamb chop	Broccoli	Hamburger bun	Doughnut

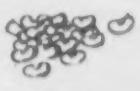
Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Ice cream cone	Roast beef	Apple	Whole wheat bread	 Butter
Yogurt	 Dried beans	Celery	Rice	Potato chips
Milk	Eggs	Cantaloupe	Whole wheat roll	Cookie
Swiss cheese	Liver	Peach	Noodles	Soft drink
Cottage cheese	Turkey	Broccoli		Jelly

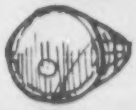
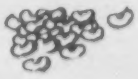
Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Yogurt		Corn	Spaghetti	Pie
Milk	Chicken leg	Orange	White bread	Oil
Cottage cheese	Fish	Asparagus	Tortilla	Salad dressing
Custard	Ham	Bananas	Muffin	Cake
Cheddar cheese	Lamb chop	Carrots	Crackers	Doughnut

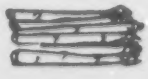
Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
	Lamb chop	Carrots	Tortilla	Doughnut
Ice cream	Roast beef	Apple	Whole wheat bread	 Butter
Yogurt	 Dried beans	Celery	Rice	Potato chips
Cheddar cheese	Eggs	Cantaloupe	Whole wheat bread	Cookie
Swiss cheese	Liver	Peach	Noodles	Soft drink

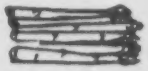
Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Ice Cream	Turkey	Broccoli	Muffin	Jelly
Yogurt	Chicken leg	Corn	Spaghetti	Pie
Milk	Fish	Orange	White bread	Oil
Cottage cheese	Roast beef	Asparagus	Crackers	Salad dressing
Ice cream cone	Ham	Bananas	Rice	

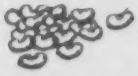
Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Cheddar cheese	Chicken leg	Broccoli	Muffin	Jelly
Milk	Fish	Orange	White bread	Pie
Cottage cheese	Beef patty		Tortilla	Oil
Custard	Ham	Asparagus	Crackers	Salad dressing
Ice cream cone	Lamb chop	Carrots	Hamburger bun	Cake

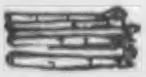
Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Yogurt	Roast beef	Apple	Whole wheat bread	Doughnut
Milk	 Dried beans	Celery	Rice	Butter
Swiss cheese		Cantaloupe	Whole wheat roll	Potato chips
Cheddar cheese	Eggs	Corn	Noodles	Cookie
Cottage cheese	Turkey	Peach	Spaghetti	Soft drink

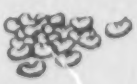
Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Cottage cheese	 Ham	Bananas	Crackers	Cake
Custard	Lamb chop	Carrots	Hamburger bun	Doughnut
Ice cream	Roast beef	Apple	Whole wheat bread	Butter
Yogurt	 Dried beans	Celery	Rice	Potato chips
	Eggs	Cantaloupe	Whole wheat roll	Cookie

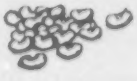
Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Cheddar cheese	Liver	Peach	Noodles	Soft Drink
Swiss cheese	Turkey	Broccoli	Spaghetti	Jelly
Custard		Corn	White bread	Pie
Yogurt	Chicken leg	Orange	Tortilla	Oil
Milk	Fish	 Asparagus	Muffin	Salad dressing

Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Yogurt	Turkey	Peach	Spaghetti	Soft drink
Cheddar cheese	Chicken leg	Broccoli	Muffin	Jelly
Milk	Fish	Orange	White bread	
Cottage cheese	Beef patty	 Asparagus	Tortilla	Pie
Custard	Ham	Bananas	Crackers	Oil

Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Ice cream	Lamb chop	Carrots	Hamburger bun	Salad dressing
Yogurt	Roast beef	Apple	Whole wheat bread	Cake
Cottage cheese	 Dried beans		Rice	Doughnut
Cheddar cheese	Eggs	Celery	Whole wheat roll	Butter
Custard	Liver	Cantaloupe	Noodles	Potato chips

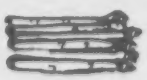
Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Milk	Fish	Orange	White bread	Pie
Cottage cheese	Beef patty	 Asparagus	Tortilla	Oil
Ham	Bananas	Crackers	Salad dressing	
Custard	Lamb chop	Carrots	Hamburger bun	Cake
Ice cream cone	Roast beef	Apple	Whole wheat bread	Doughnut

Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Yogurt	 Dried beans	Celery	Rice	Butter
Milk	Eggs	Cantaloupe	Whole wheat roll	Potato chips
Swiss cheese	Liver	Peach		Cookie
Ice Cream	Turkey	Broccoli	Noodles	Soft drink
Custard	Chicken leg	Corn	Spaghetti	Jelly

Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Swiss cheese	Ham	Orange	Whole wheat roll	Doughnut
Ice cream	Chicken leg	Apple	Rice	Oil
Custard	Fish	Celery		Jelly
Milk	Eggs	Asparagus	Crackers	Soft drink
Cheddar cheese	 Dried beans	Cantaloupe	Muffin	Potato chips

Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Cheddar cheese	Liver	Peach	Spaghetti	Pie
Yogurt	Roast beef	Carrots	Tortilla	Cake
Milk	Beef patty	Broccoli	Noodles	
Custard	Lamb chop	Cantaloupe	Hamburger bun	Butter
Cottage cheese	Turkey	Bananas	White bread	Salad dressing

Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Ice cream	Roast beef	Cantaloupe	White bread	Salad dressing
Milk	Turkey	Bananas	Whole wheat roll	Cake
Yogurt	Fish	Carrots	Rice	Oil
	Chicken leg	Celery	Spaghetti	Pie
Cottage cheese	Ham	Apple	Noodles	Potato chips

Milk and Cheese Group	Meat, Poultry, Fish, and Beans Group	Fruit and Vegetable Group	Bread and Cereal Group	Extra Foods Group
Custard	Eggs	Orange		Butter
Cottage cheese	Beef patty	Broccoli	Muffin	Jelly
Yogurt	Lamb chop	 Asparagus	Crackers	Doughnut
Cheddar cheese	Liver	Carrots	Hamburger bun	Soft drink
Swiss cheese	Dried beans	Peach	Whole wheat bread	Cookie

Teacher Key

Milk and Cheese Group	Ice cream cone	Ice cream	Cheddar cheese	Custard	Milk	Swiss cheese	Cottage cheese	Yogurt		
Meat, Poultry, Fish, and Beans Group	Roast beef	Dried beans	Ham	Liver	Beef patty	Chicken leg	Lamb chop	Eggs	Fish	Turkey
Fruit and Vegetable Group	Orange	Carrots	Celery	Corn	Apple	Peach	Bananas	Asparagus	Broccoli	Cantaloupe
Bread and Cereal Group	Rice	Noodles	Muffin	Whole wheat roll	White bread	Crackers	Hamburger bun	Spaghetti	Whole wheat bread	Tortilla
Extra Foods Group	Cake	Oil	Jelly	Doughnut	Cookie	Pie	Soft drink	Salad dressing	Potato chips	Butter

Directions: Make two copies of the teacher key. Laminate and cut apart one copy. Place the cutout tokens in a paper bag or box. Draw them out, one at a time, and call out the food named. Place each token on the second copy of the teacher key to check the students' winning cards.

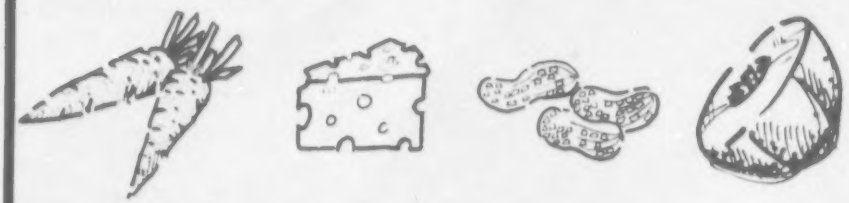
Name _____

Food Groups

Put an *X* on the food that belongs to the same food group as the food in the first square.

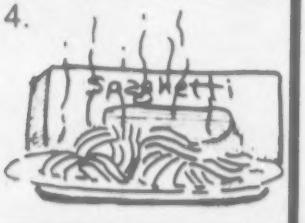
1. Example

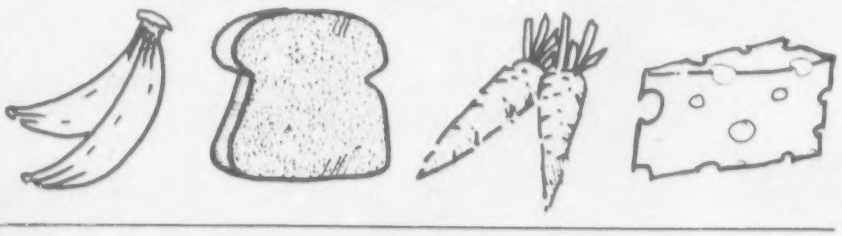
2.



3.

4.





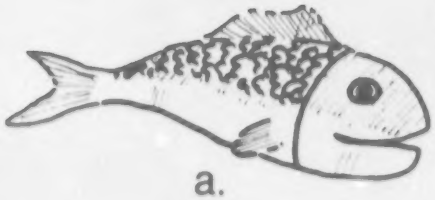
5.

6.

Name _____

Food Group Circles

Circle the meat, poultry, fish, and beans group foods.

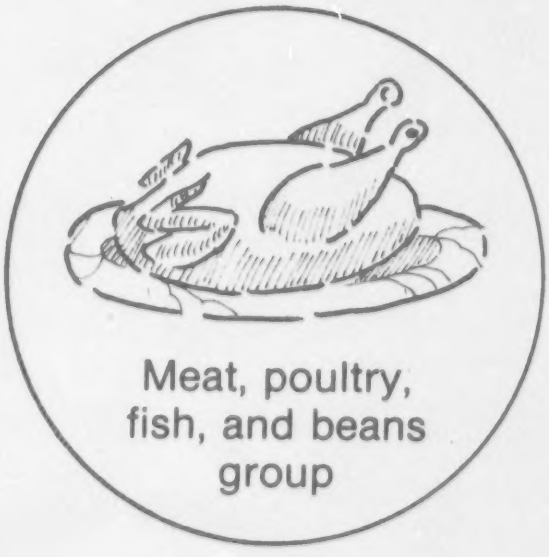


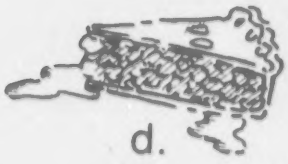
a.
Fish

b.
Grapes

c.
Chili Beans

i.
Cereal





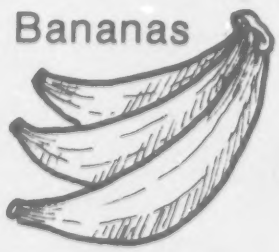
d.
Pie

e.
Eggs

h.
Peanut Butter

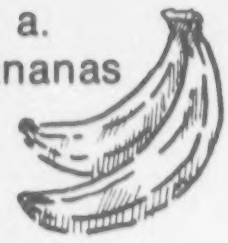
g.
Orange

f.
Bananas



Name _____

Circle the milk and cheese group foods.



a.
Bananas

b.
Canned
Milk

c.
Peanuts

i.
Bread

Milk and cheese
group

d.
Cheese

h.
Cottage Cheese

e.
Potato

g.
Milk

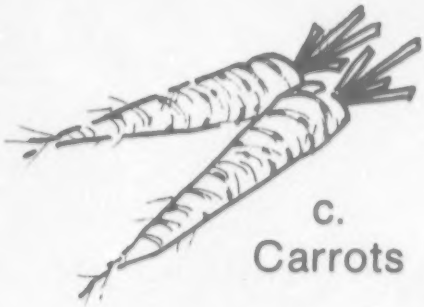
f.
Cake

Name_____

Circle the bread and cereal group foods.

a.
Oats

b.
Peanut
Butter

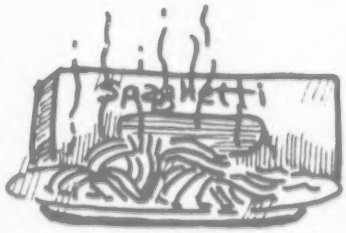


c.
Carrots

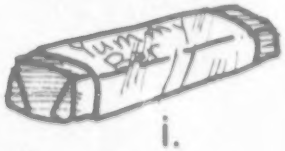
d.
Eggs

j.
Whole Wheat
Flour

Bread and
cereal group



e.
Spaghetti



i.
Candy

f.
Rice

h.
Apple

g.
Muffin

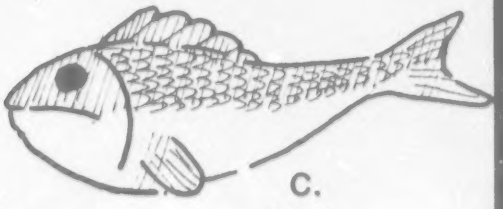
Name_____

Circle the fruit and vegetable group foods.

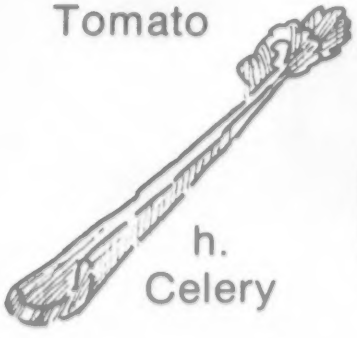
a.
Potato

b.
Milk

i.
Tomato

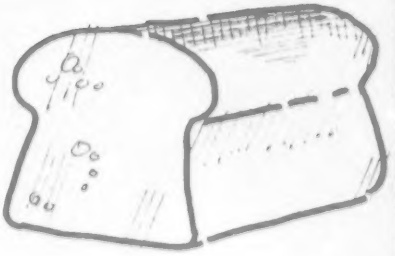


c.
Fish



h.
Celery

Fruit and
vegetable group



d.
Bread

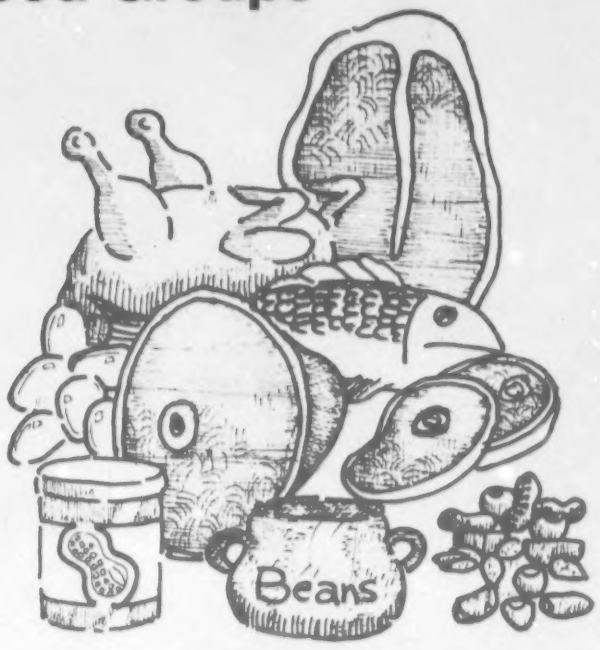
g.
Broccoli

e.
Orange

f.
Cheese

Basic Four Food Groups

Milk and Cheese



Meat, Poultry, Fish, and Beans

Fruit and Vegetable

Bread and Cereal

Name _____

Which Group?

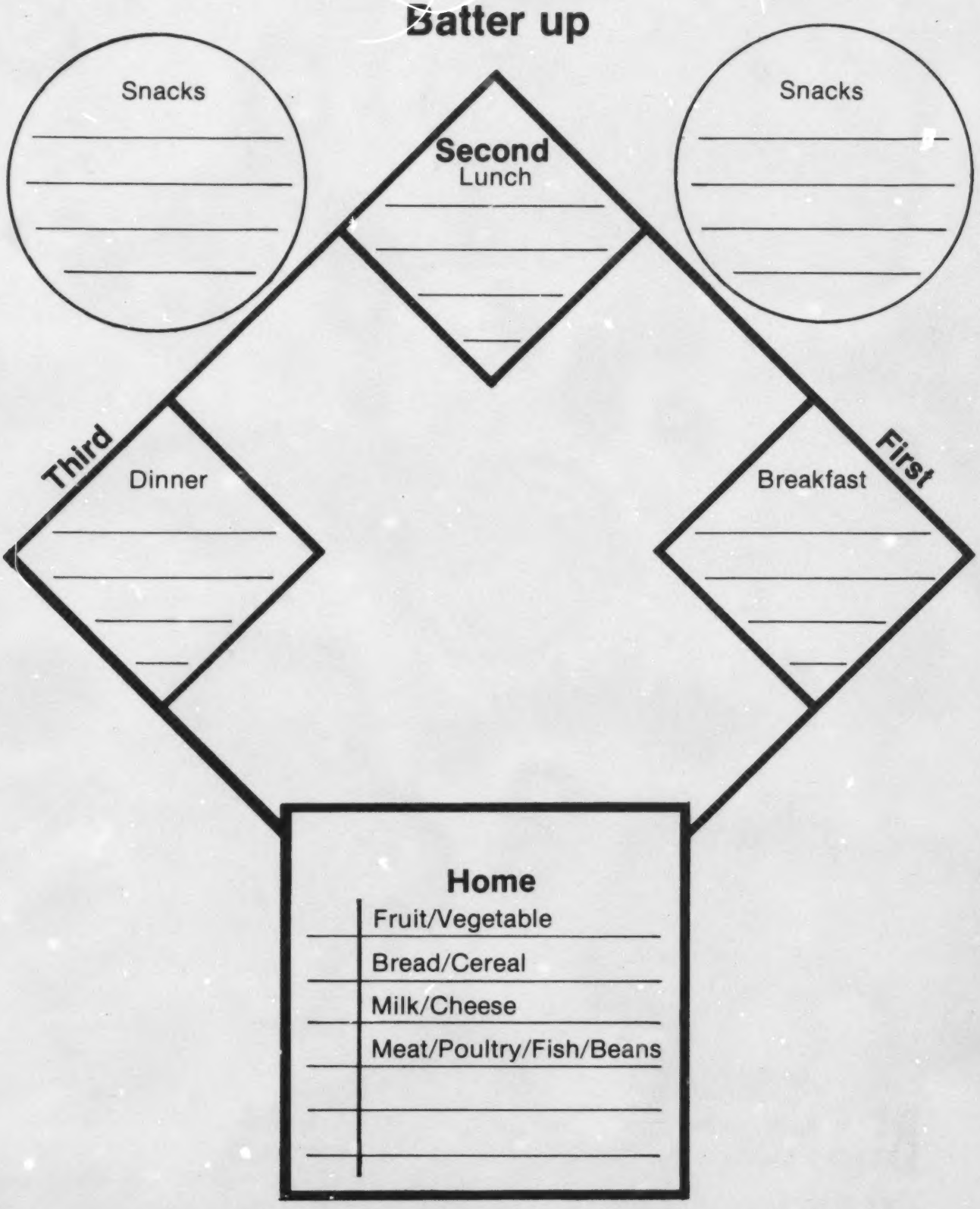
Fill in the blanks with the letter of the right food group.

A. Milk and Cheese
B. Meat, Poultry, Fish, and Beans
C. Bread and Cereal
D. Fruit and Vegetable

1. Chicken is in the _____ Group.
2. Eggs are in the _____ Group.
3. Apples are in the _____ Group.
4. Bread is in the _____ Group.
5. Tortillas are in the _____ Group.
6. Cheese is in the _____ Group.
7. Peanuts are in the _____ Group.
8. Lettuce is in the _____ Group.
9. Tomatoes are in the _____ Group.
10. Muffins are in the _____ Group.
11. Green peppers are in the _____ Group.
12. Yogurt is in the _____ Group.
13. Fish is in the _____ Group.
14. Rice is in the _____ Group.
15. Bananas are in the _____ Group.
16. Corn is in the _____ Group.
17. Refried beans are in the _____ Group.
18. Oatmeal is in the _____ Group.

Name _____

Batter up

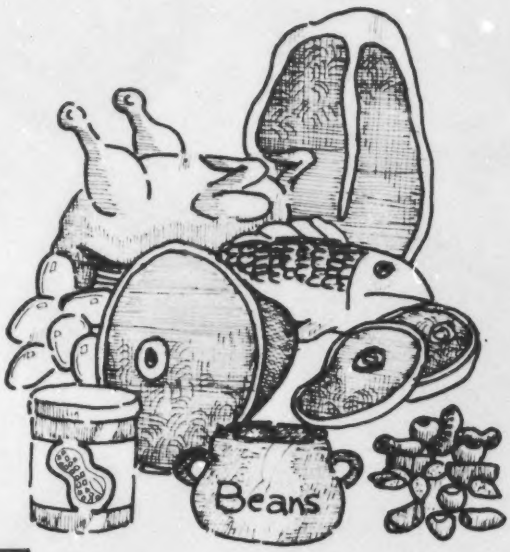


Name_____

How Many Servings?

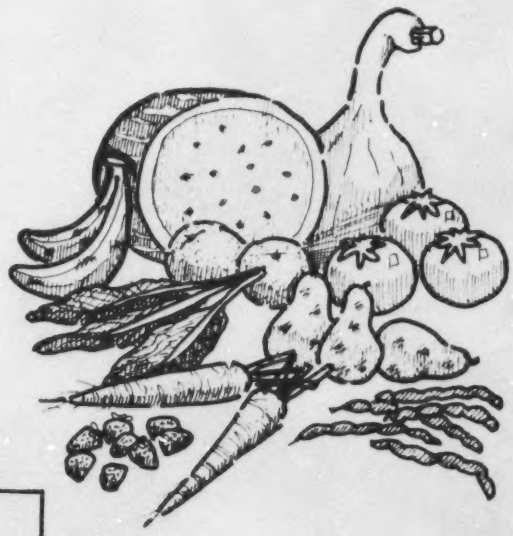
In the box provided write the correct number of servings per day for each food group.

☐ Milk and Cheese Group



☐ Meat, Poultry, Fish, and Beans Group

☐ Bread and Cereal Group



☐ Fruit and Vegetable Group

Favorite Fruits

Name _____

One of my values about

_____

is that they are

_____

Name _____

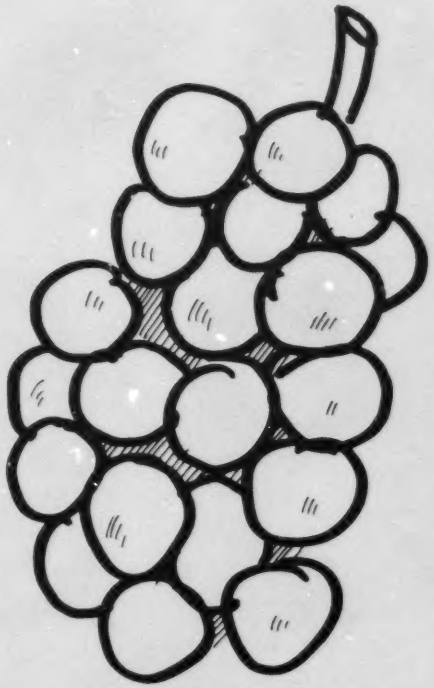
One of my values about

_____

is that they are

_____

Name _____



One of my values about

Grapes

is that they are

Seedless

Name _____

One of my values about

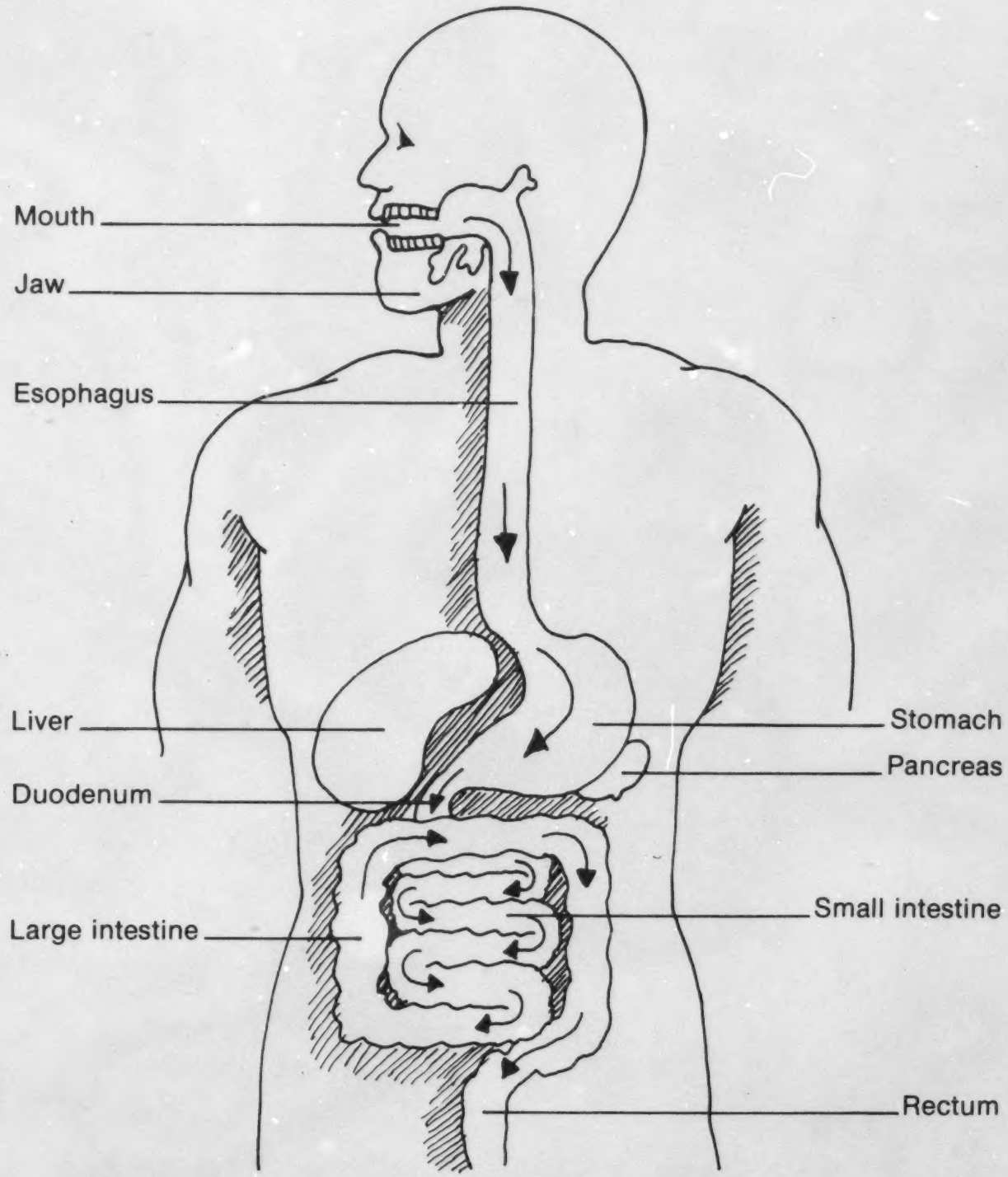
Bananas

is that they are

Soft

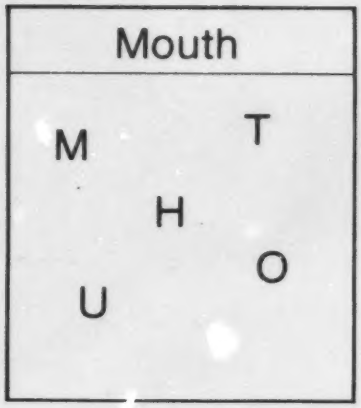
F-74

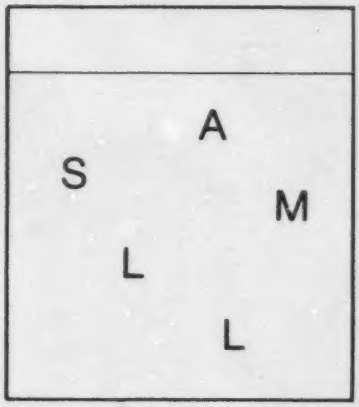
Digestive System Diagram

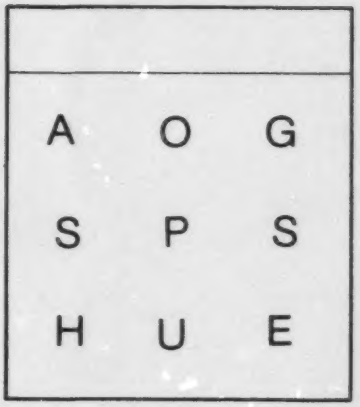


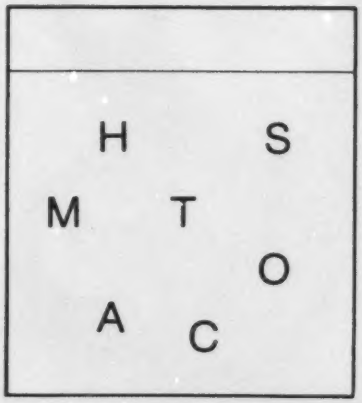
Name _____

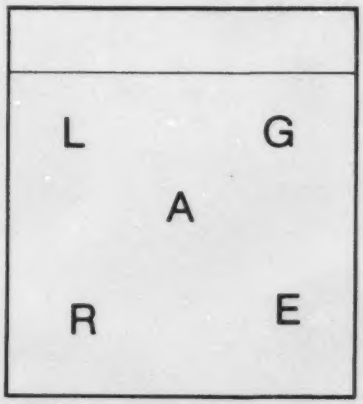
Follow the Digestive System











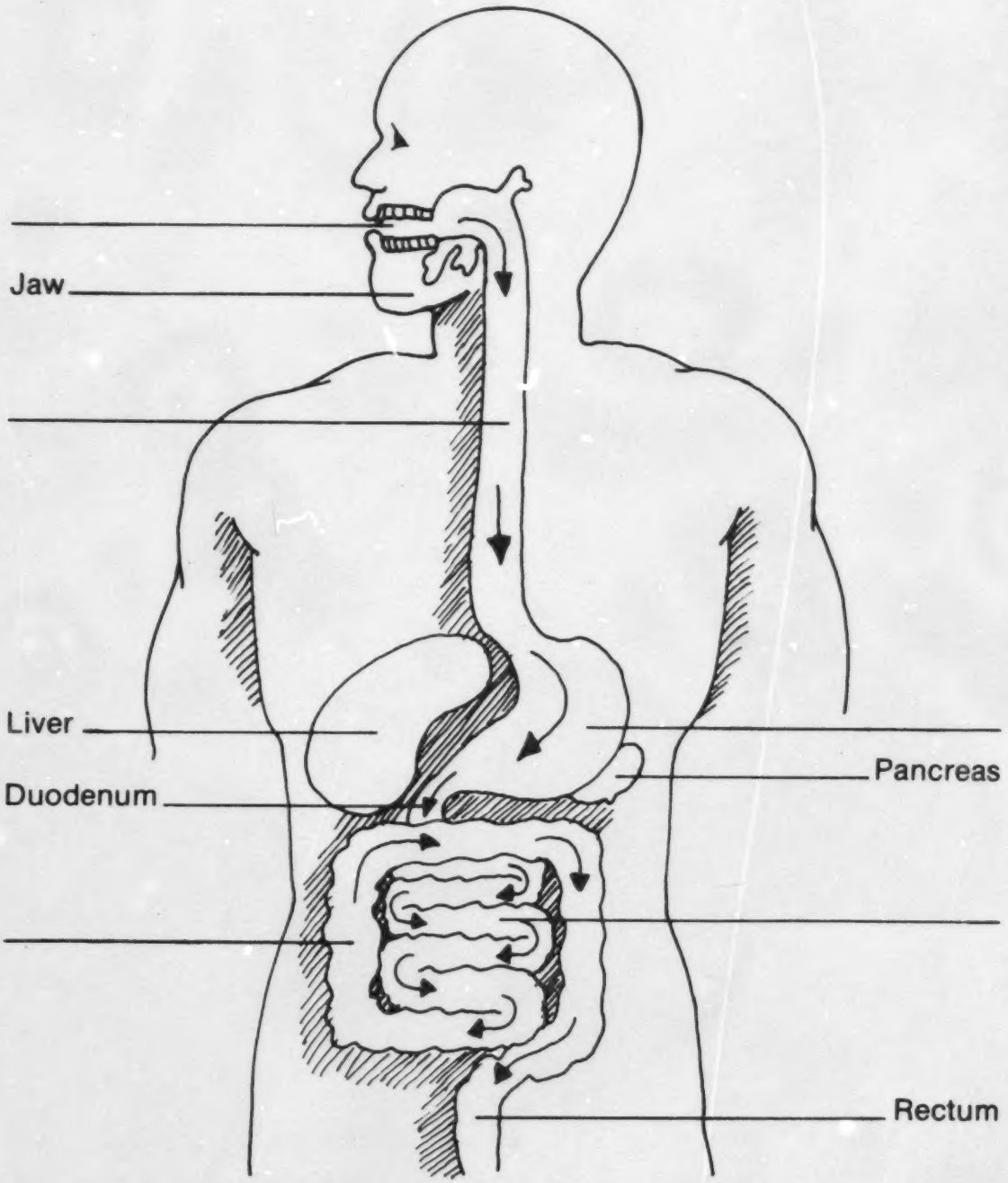
Put the words in the correct order as they follow the digestive system.

1. MOUTH _____
2. _____
3. _____
4. INTESTINE _____
5. INTESTINE _____

Name _____

The Food Tube

Label the parts of the digestive system on the lines provided.

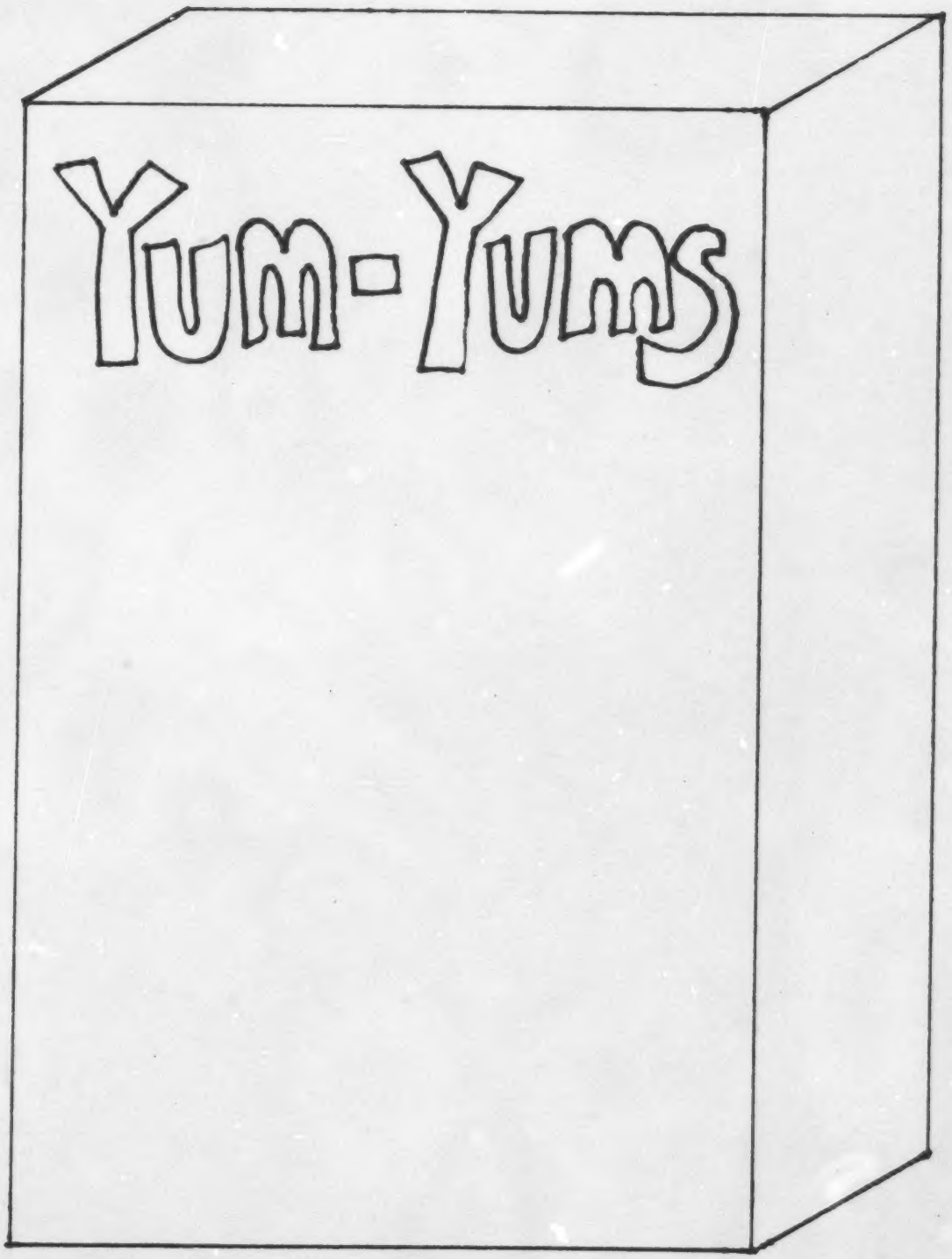


Name _____

Why Would You Buy It?

Name _____

Draw the rest of the box.



Sample Letter to Parents

Cut here to send home.

Dear Parent:

Presently, we are studying nutrition in our classroom. As part of this study, we are interested in promoting consumer awareness of food advertising. I would appreciate it if you would allow your child to bring an empty breakfast cereal box to class by

We are not interested in promoting a specific breakfast cereal. Rather, we are interested in helping your child to become a more thoughtful consumer.

If you have any questions, please feel free to contact me.

Sincerely,

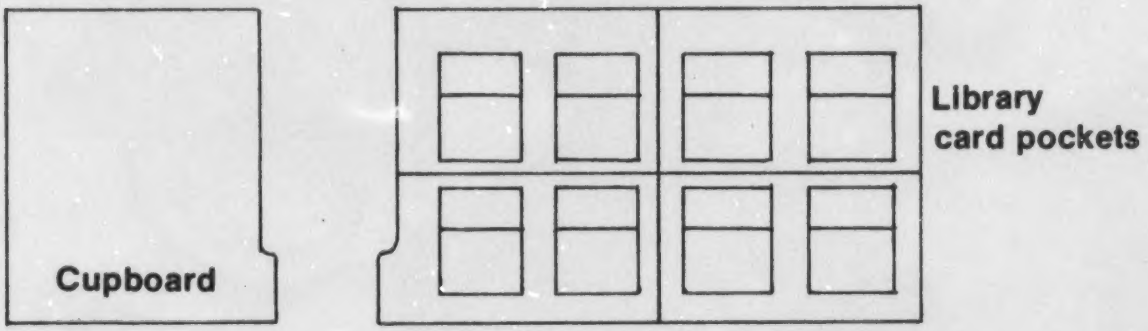
_____

Teacher

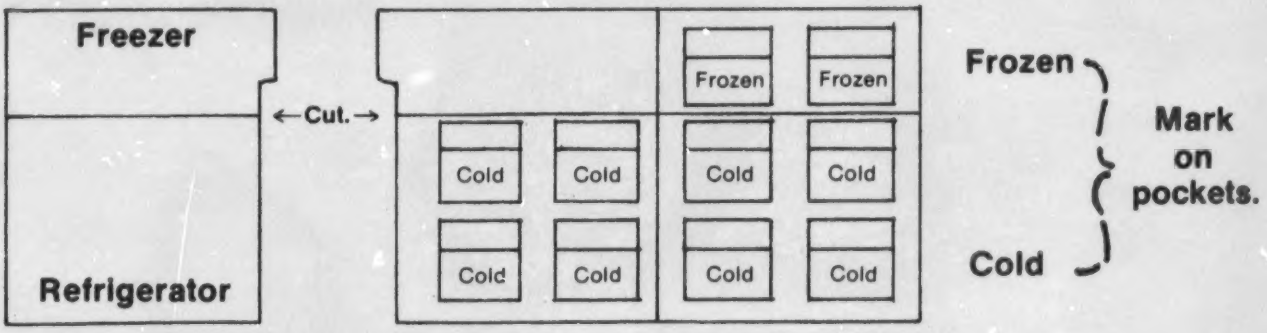
Food Storage Learning Center

The food storage learning center consists of:

A file folder designed to represent a cupboard.

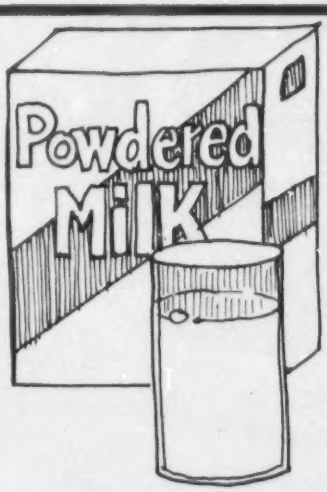


A file folder designed to represent a refrigerator-freezer.

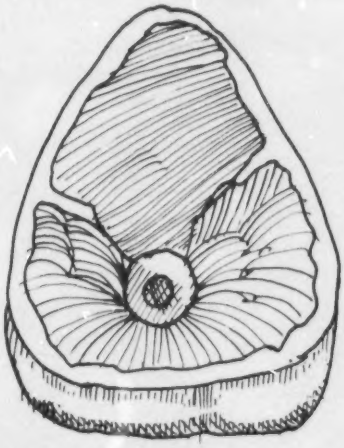


Directions: Color the pictures on pages F-82 and F-83, if desired; then laminate them and cut them apart.

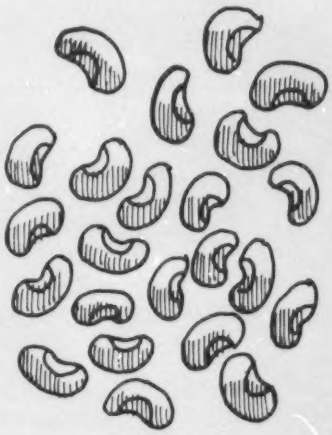
Everything should be laminated!



Powdered milk

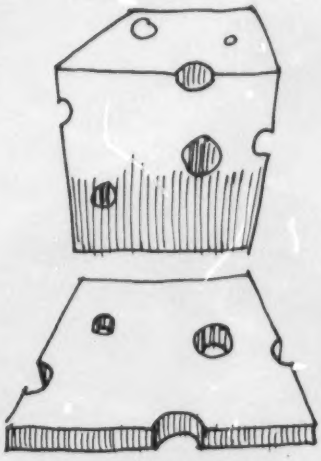


Beef roast



Dried beans

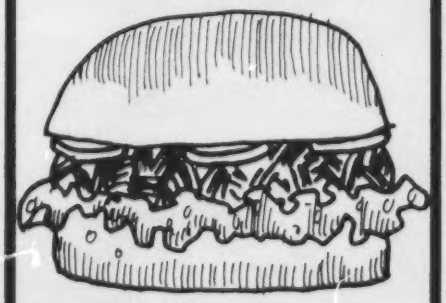
Carrots (fresh)



Cheese

Ice

Tortillas



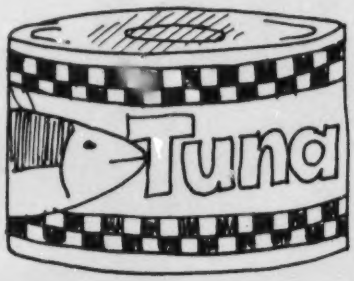
Hamburger

Cabbage

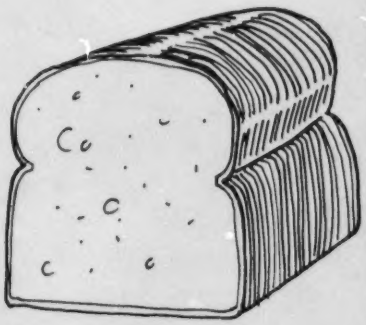
Green beans (frozen)

Flour

Carrots (can)



Tuna (can)



Bread

Tomato soup (can)

Orange

Ice cream

Milk

Name_____

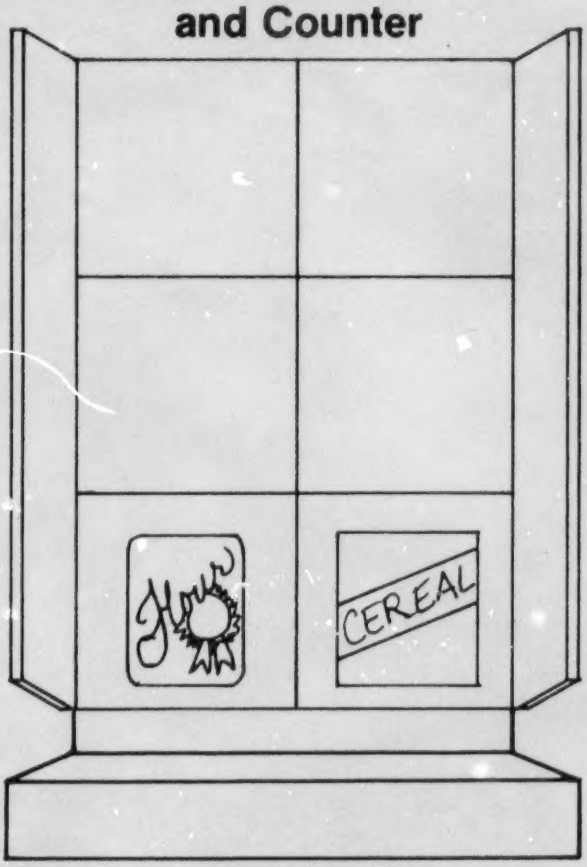
Storing Food

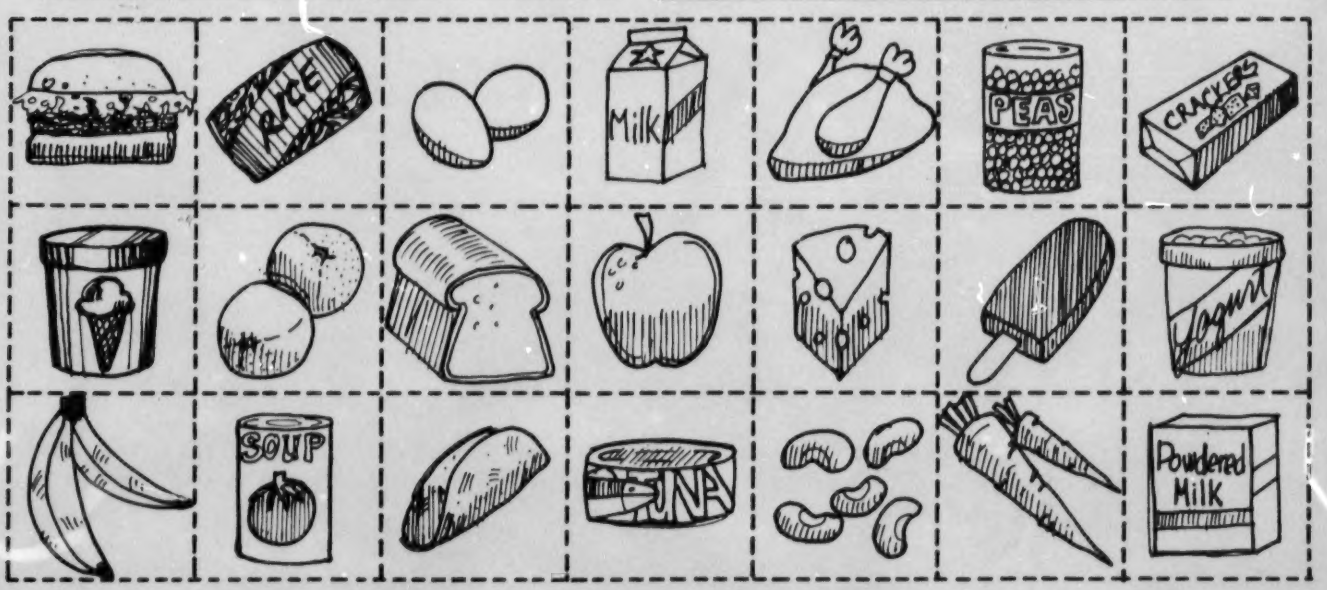
Cut out the food pictures and paste them where they should be stored.

Freezer

Refrigerator

Cupboard Shelves and Counter

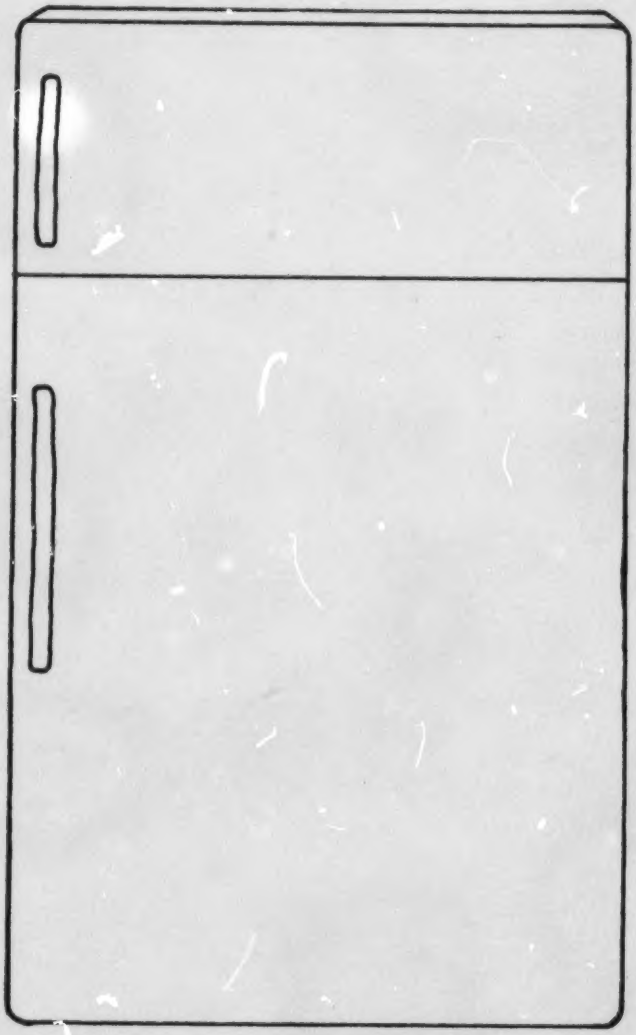




Name _____

Food Storage

Cut and paste the foods which should be stored in the refrigerator or freezer. Place these foods in the correct place. Not all foods will belong in the refrigerator or freezer.



Milk

Cereal

Hamburger patty

Apple

Ice cream

Oranges

Tortillas

Cheese

Chicken

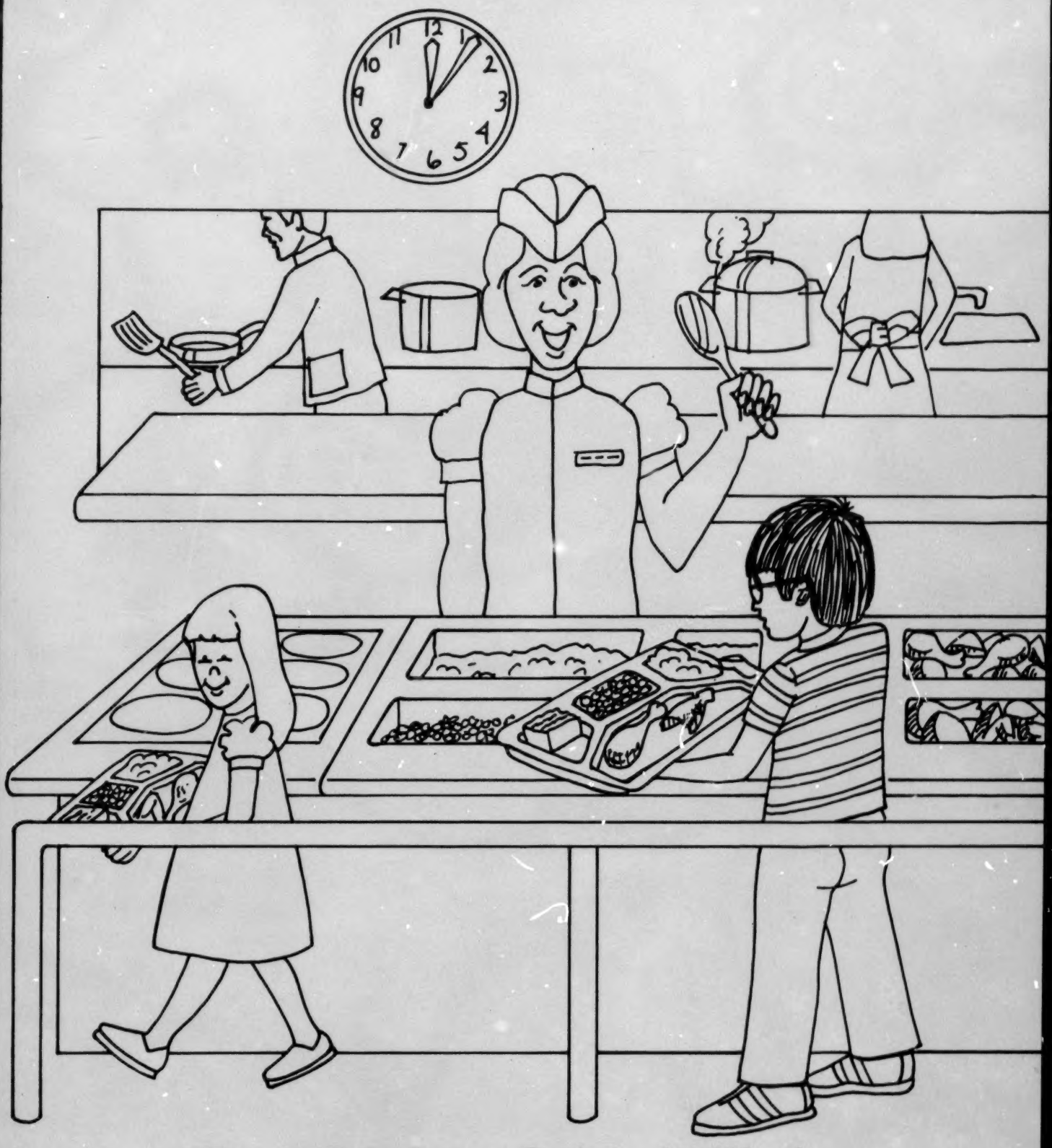
Soup

Eggs

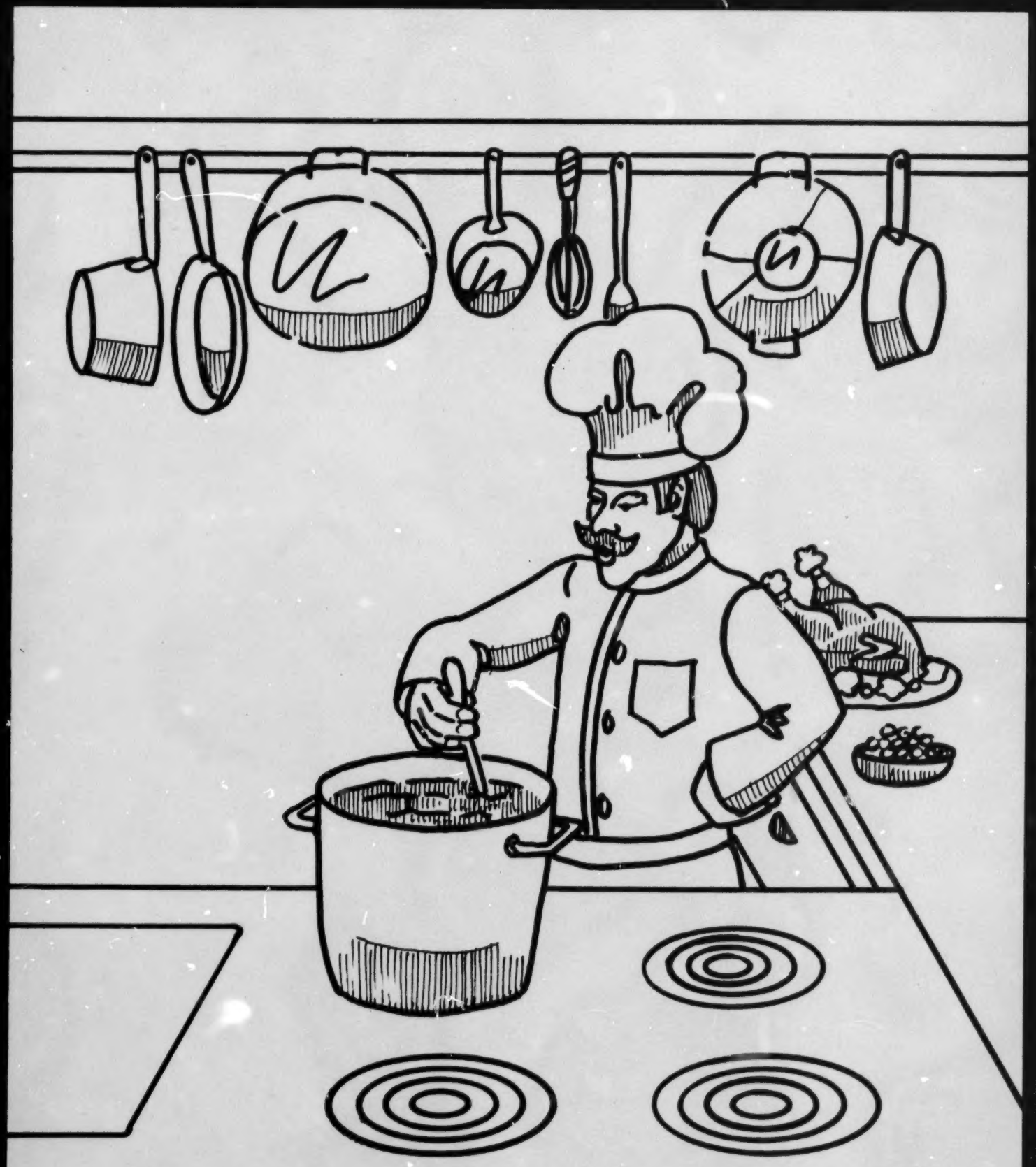
Banana

Blueberry muffin

Food Service: School Food Service Manager



Food Service: Cafeteria Worker



Food Preparers: Cook/Chef

Food Preparers: Baker

Food Server: Waiter or Waitress

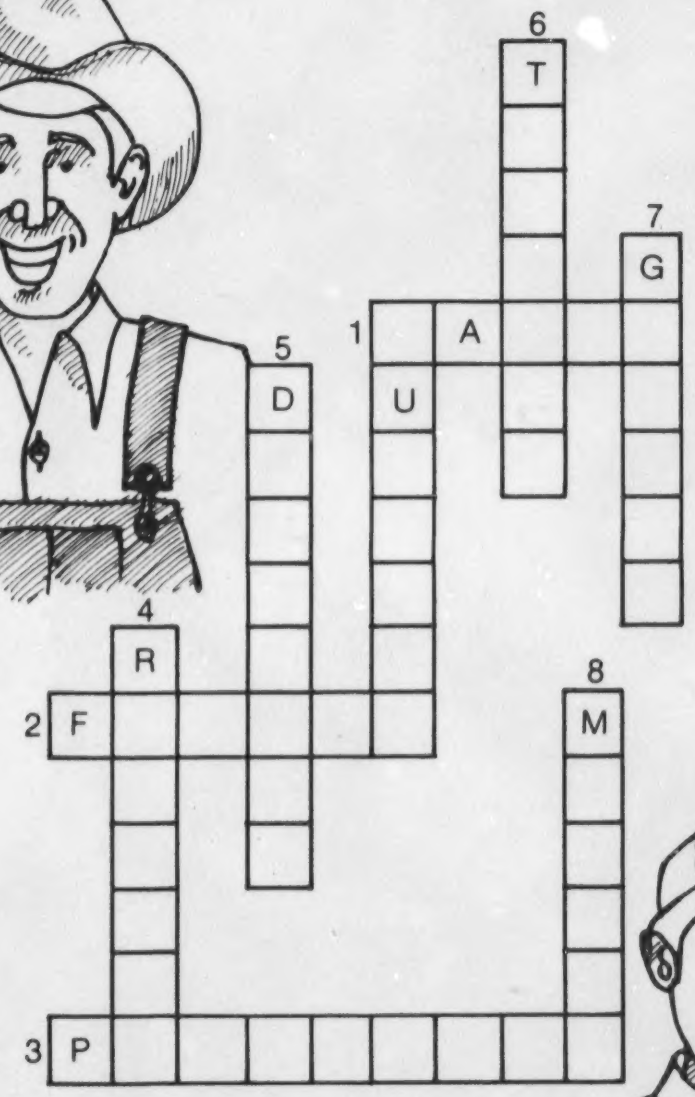
Dishwasher

F-91

Name _____

Food-Related Careers

Directions: Fill in the crossword puzzle with the names of the workers listed below the puzzle. Descriptions of the tasks performed by the workers appear on the right of the puzzle.



Across

1. Bakes bread
2. Grows plants and animals for food
3. Cans, freezes, dries, or makes food

Down

1. Cuts up meat
4. Raises cattle, sheep, or chickens
5. Gets milk from cows
6. Delivers food
7. Sells food
8. Grinds wheat into flour

Grocer
Miller
Processor
Farmer
Butcher
Dairyman
Rancher
Trucker
Baker

Name _____

Matching Career Titles with Job Duties

Write the letter which describes the job duties listed in Column B in front of the best career title in Column A.

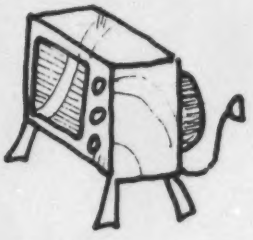
A Job Title	B Job Duties
_____ 1. Cook/Chef	A. Sorts spoiled food from good food before canning or packing
_____ 2. Sorter	B. Hulls or grinds grain for cooking and baking
_____ 3. Miller	C. Prepares food
_____ 4. Dairy farmer	D. Raises cows for milk
_____ 5. Waiter	A. Sees that food is prepared and served
_____ 6. Rancher	B. Sells food
_____ 7. Grocer	C. Serves food in a restaurant
_____ 8. Food service manager	D. Raises cattle for beef
_____ 9. Canner	A. Cuts large pieces of meat
_____ 10. Butcher	B. Grows fruits, vegetables, and grains
_____ 11. Farmer	C. Makes bread, rolls, and other products from grains
_____ 12. Baker	D. Preserves food in jars and cans

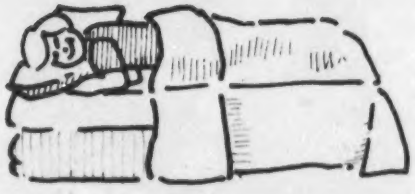
Name _____

Energy

1. Circle the activity that requires *more* energy from food.

or



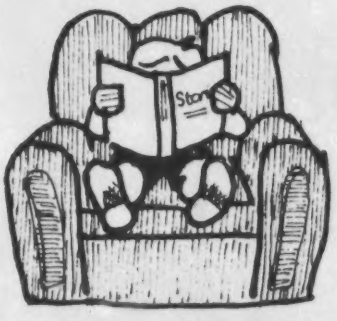


or

2. Circle the activity that requires *less* energy from food.

or

or



Activity Word Cards

Cut along the solid lines to form individual activity word cards.

Running	**Reading a book**
Sleeping	**Jumping rope**
Watching television	**Playing soccer**
Mowing the lawn	**Sitting in class**
Riding the bus to school	**Sweeping the floor**
Walking	**Taking out the trash**

Name _____

How Much Energy?

Circle the word in each row that requires the *most* energy from food.

1. Walking, running, sleeping
2. Sweeping the floor, watching TV, taking a nap
3. Jumping rope, reading a book, playing jacks
4. Drawing a picture, riding a bike, talking to a friend
5. Surfing, swimming, taking a sun bath
6. Skate boarding, playing the piano, knitting a sweater
7. Sleeping, walking to school, taking the bus to school
8. Watching a baseball game, playing in a baseball game, reading a book on baseball
9. Jogging a mile, walking a mile, riding a bicycle for a mile
10. Taking out the trash, mowing the lawn, dusting the furniture

From the ten circled words, list the five you think require the *most* energy from food:

1. _____
2. _____
3. _____
4. _____
5. _____

Why Eat in the Cafeteria?

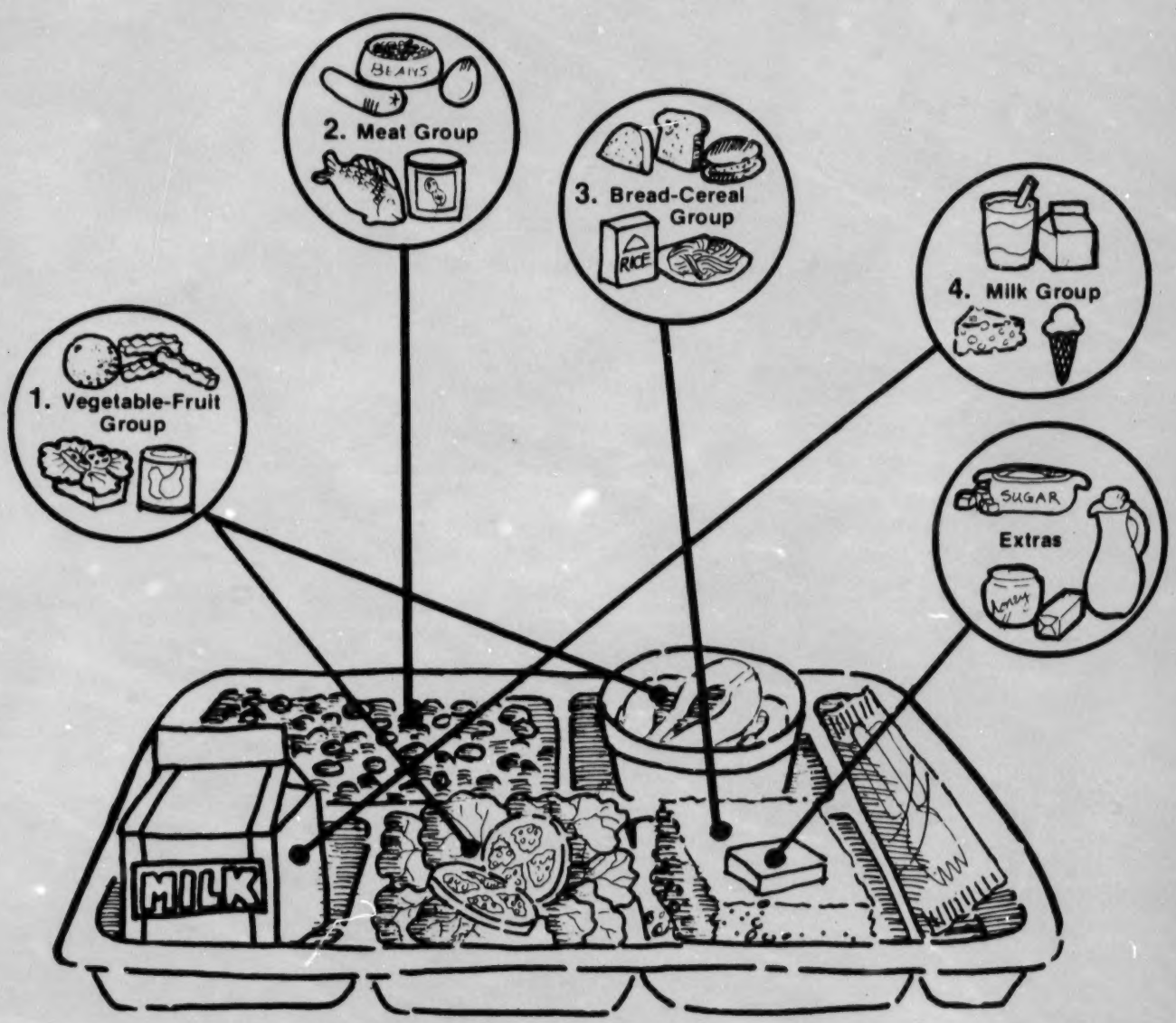
Students need a proper diet to stay alert at school.
The school lunch pattern is planned, so you need never lose your cool!

Students need a strong body so they can run and play.
To get *your* nutritional requirements, eat in the cafeteria each day.

The school lunch program is planned with good food on a colorful tray.
Do yourself a favor and eat in the cafeteria today!

School Lunch Pattern

This lunch has all the basic food groups.



Menu

Chili beans
Tossed green salad with tomatoes
Cornbread and butter
Pear halves
Milk

School Lunch Pattern Every Day

½ pint (237 mL)

Meat or Meat Alternate

2 oz. or
(56 g) serving

Eggs, Beans,
Peanut butter

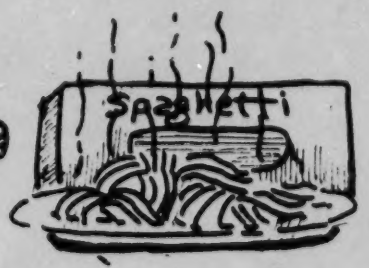
Fruit

Vegetable

¾ cup (165) g) of two or more

Bread or Bread Alternate

One slice



Pasta, rice, or grains
½ cup (110 g)

F-99

Name _____

Plan a Lunch

What goes into the school lunch pattern?	1. Meat or Meat Alternate 2. Vegetable and Fruit 3. Bread, Rice, or Pasta 4. Milk	Four Food Groups
Meat or Meat Alternate		Meat, Poultry, Fish, and Beans
Vegetable and Fruit		Vegetable and Fruit
Bread or Bread Alternate		Bread and Cereal
Milk		Milk and Cheese

Name _____

On Your Way to Good Nutrition

Directions: Mark an *X* over the menus that include all the types of foods required in the school lunch pattern.

1 Ham and cheese sandwich Peach slices Carrot and celery sticks Milk	2 Meat loaf Peas Rice Fruit salad Milk	3 Potato chips Cookies Cola
4 Roast beef Carrots Fruit salad Whole wheat roll with butter Milk	5 Cheese sandwich Ice cream cone Fruit punch	6 Hamburger on bun Lettuce and Tomato slices Orange sections Milk
7 Fish sticks Potatoes Roll and butter Cake	8 Meatballs Spaghetti Tomato sauce Tossed green salad with dressing Milk	9 Barbecued chicken Rice Broccoli Apple slices Milk
10 Turkey Sweet potatoes Green beans Roll and butter Milk	11 Burrito Orange slices Milk	12 Hot dogs Potato chips Cookies Soda pop

Isaac's Family
(Jewish Background)

Kim's Family
(Asian Background)

Maria's Family
(Mexican Background)

Kenya's Family
(Afro-American)

Name _____

Four Food Groups—Ethnic Style

In the box below each food, write the number of the food group in which the food belongs.

1. Milk and Cheese
2. Meat, Poultry, Fish, and Beans
3. Fruit and Vegetable
4. Bread and Cereal

Traditional meal for Isaac

Milk

Lox

Bagel

Apple

Traditional meal for Kim

Rice

Fish

Tofu

Orange

Traditional meal for Maria

Tortilla

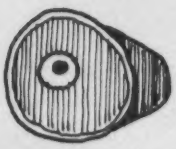
Tomato

Refried beans

Cheese

Traditional meal for Kenya

Ham



Buttermilk

Cornbread

Melon

F-106

Name _____

How to Make a Tortilla

Draw a circle around the face that shows how you felt about your tortilla.

Today at school I made my own tortilla. I felt about this food.

The recipe is:

2 Tablespoons (30 g) tortilla flour (masa harina)
2 Tablespoons (30 mL) warm water

Combine the flour and water in a small bowl and stir. Form the dough into a smooth ball. Press the ball between two squares of waxed paper (or use a tortilla press). Cook the tortilla on a griddle for two minutes at a high heat. Eat the tortilla while it is hot. Spread it with butter, cheese, or refried beans.

Can we try this together?

Name _____

Reasons for Selecting Foods

For each of the reasons listed, circle 1, 2, or 3 to indicate how important that reason was to you when you selected your food.

Reasons for food choice	Very important	Important	Not important
Taste	1	2	3
Smell	1	2	3
Color	1	2	3
Texture	1	2	3
Nutritional value	1	2	3
Ease of preparation	1	2	3
Parent's advice	1	2	3
Friend's choice	1	2	3
Time of day	1	2	3
Trying something new	1	2	3
Cost	1	2	3
_____	1	2	3
_____	1	2	3
_____	1	2	3
_____	1	2	3
_____	1	2	3
_____	1	2	3

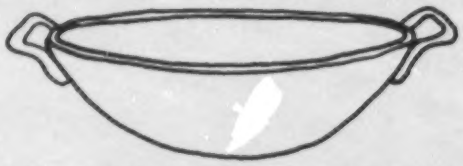
Food Selected

Stir-Frying

Stir-frying is an oriental style of "meal in a pot" cookery. Even today, many people living in the Orient prepare their food using one pot over a single wood or kerosene flame. The stove is portable so that a meal can be made wherever the family is—at home, under a tree, or in the market place.

Method for use

A small amount of oil, preferably peanut oil, is put in the bottom of a large sphere-shaped pot called a wok. Actually, the pot is like half a sphere that has been spread out slightly at the top.



The wok is heated until one can feel the heat when a hand is held about three inches over the bottom of the wok. The food is then added and constantly stirred until the meat changes color and the vegetables are covered with a thin film of oil. The wok is then covered and removed from the heat for about five minutes. Flavoring is added; then the food is reheated gently and served immediately. Slight variations in order and timing are required for different dishes.

Nutritive advantages

The thin coating of oil seals the vegetables so that little or none of the nutrients leach into the cooking water. The short cooking time also preserves the vitamins. The oil film prevents volatile gases from escaping from the food. Such gases cause the unpleasant odor that sometimes occurs when cabbage is cooking. The gases are acid in nature and give green vegetables an unappetizing, dull color. Vegetables cooked in a wok stay a bright green. All cooking juices are used as gravy so that if vitamins do go into the cooking water, none of the vitamins are lost.

Recipe for vegetable stir-fry

- 2 cups bean sprouts (259 g)
- 2 sliced green onions
- 2 sliced stalks of celery
- ½ bunch broccoli, broken into pieces
- 2 tablespoons (30 mL) wine vinegar (optional)
- 3 tablespoons (45 mL) oil
- 1 tablespoon (15 g) sugar (optional)
- 1 tablespoon (15 mL) soy sauce

Wash and slice the vegetables. Heat the pan and add oil. Add broccoli and celery, and stir-fry two to three minutes. Add the bean sprouts and onions; stir-fry one minute. Make sure that all of the vegetables are covered with the oil. Add the seasonings and cover for three minutes. Serve the vegetables immediately.

Name _____

Cooking Magic

P	C	B	S	T	E	A	M	K	L	J	M	B
R	O	S	T	I	R	F	R	Y	X	Z	I	D
E	L	B	A	R	B	E	Q	U	E	G	C	B
S	M	C	H	Q	D	J	V	S	B	T	R	A
S	V	R	O	A	S	T	U	I	O	H	O	K
U	P	L	R	E	M	I	R	J	I	S	W	E
R	M	B	I	G	F	X	O	T	L	B	A	E
E	K	R	S	M	N	L	P	F	M	Z	V	H
C	N	O	W	B	D	C	E	O	Q	A	E	N
O	W	I	T	R	P	H	O	G	R	I	L	L
O	S	L	B	U	S	T	E	W	O	J	K	M
K	B	G	L	C	A	J	D	F	K	F	R	Y

Find the hidden words:

Bake	Stir-fry	Stew
Barbeque	Grill	Boil
Pressure cook	Steam	Broil
Fry	Roast	Microwave

Note: Words may be spelled up and down or sideways.

Name _____

Preparing Food

A. List in order the steps used in preparing a carrot to be eaten. Use the words given below.

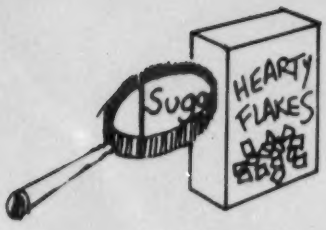
1. _____
2. _____
3. _____
4. _____
5. _____

Cut
Wash
Peel (optional)
Cook
Eat

B. What are two ways of cooking a carrot?

1. _____
2. _____

Name _____



Label Detective

Look over each box of cereal. Find the list of ingredients on the side of each package. Use the box label to answer the questions listed below. You may need to use other information on the box, too.

1. Write the names of the cereals on the lines below. Which ingredient is listed *first* in these cereals?

Cereal	Ingredient	Cereal	Ingredient

2. Why is it important to know which ingredient is listed *first*? _____

_____

_____

3. Which cereals do you think would be best for you to eat?

_____

4. Why? _____

_____

Name _____

Which Is the Main Ingredient?

The following are the ingredients in pancakes:

Flour (2 cups) (225 g)
Baking powder (2 teaspoons) (7 g)
Sugar (1 teaspoon) (5 g)
Milk (1½ cups) (355 mL)
Beaten eggs (¼ cup beaten) (59 mL)
Oil (3 tablespoons) (45 mL)

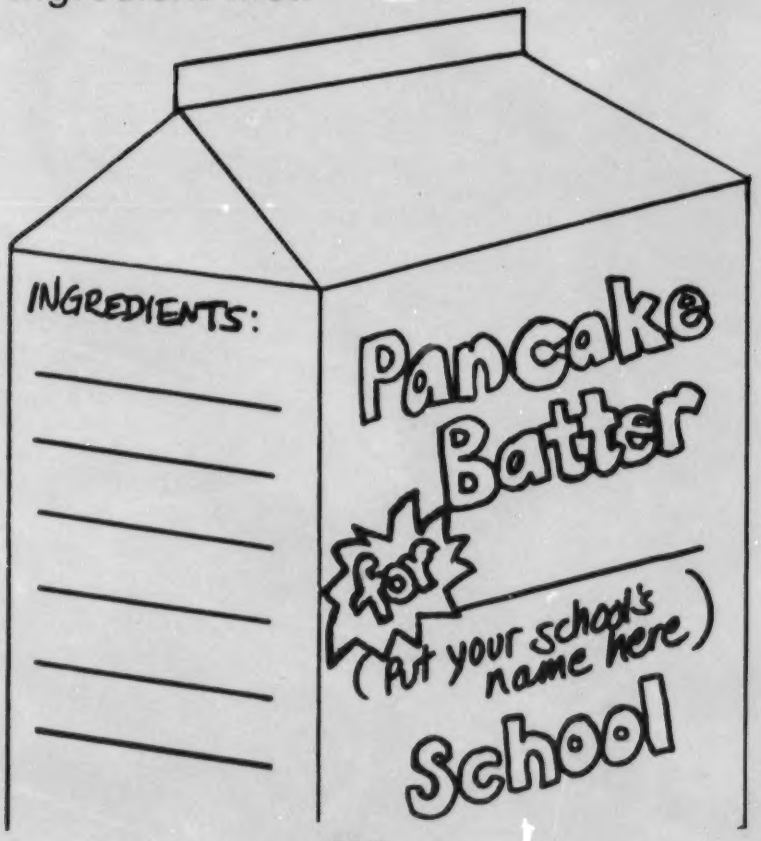
1. Look at the ingredients.

   Are the amounts of each ingredient the same? _____
   If the amounts of ingredients are not the same, which one is the largest? _____

   _____

   Which one is the smallest amount? _____

2. List the ingredients in order on the box below. Be sure to list the main ingredient first.



F-113

Name _____

Student Recipe Sheet

Pancakes

Combine the following:

2 cups (225 g) flour (1 cup [112 g] white flour; 1 cup [112 g] whole wheat flour)
2 teaspoons (7 g) baking powder
1 teaspoon (5 g) sugar

Mix in:

1½ cups (355 mL) milk
¼ cup (59 mL) beaten eggs (approximately 2 eggs)
3 tablespoons (45 mL) oil

Pour a small amount of mixture onto a frying pan. Turn over the pancake when bubbles break on top.

Rieska (Finnish Rye)

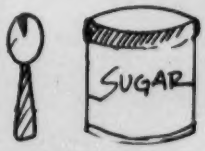
1. Put in a bowl:

¼ cup (56 g) rye flour

2. Stir in:

a pinch of salt

3.



⅛ teaspoon (.6 g) sugar

4.

¼ teaspoon (.5 g) baking powder

5.

2 tablespoons (30 mL) evaporated milk

6.

¾ teaspoon (3.7 mL) melted butter

7.

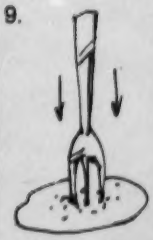
Mix to form a smooth batter.

8. Oiled fingers

Press into 4 inch (10 cm)

shape.

9.



Prick the top.

10. 425°

Bake ten minutes at 425° F (218° C).

Eat hot with butter.

Name _____

Tricky Advertising

Check any of the following that you think will trick you into buying a food product:

____1. Breakfast cereals whose firms give prizes for sending in box tops

____2. Nutritional information listed on food packaging

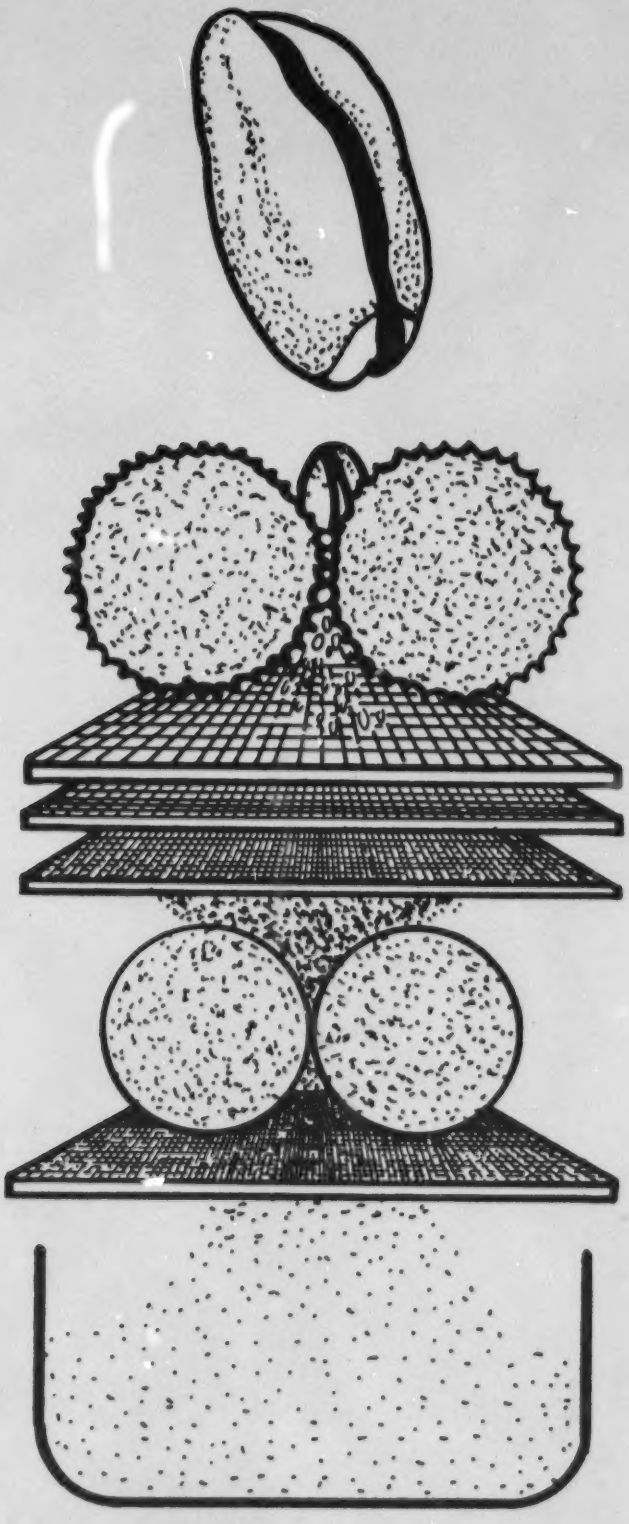
____3. Manufacturers that put a small amount of their food product in a large container

____4. Television commercials which make food products look bigger and better than they really are

____5. Food labels that list all of the ingredients in the product

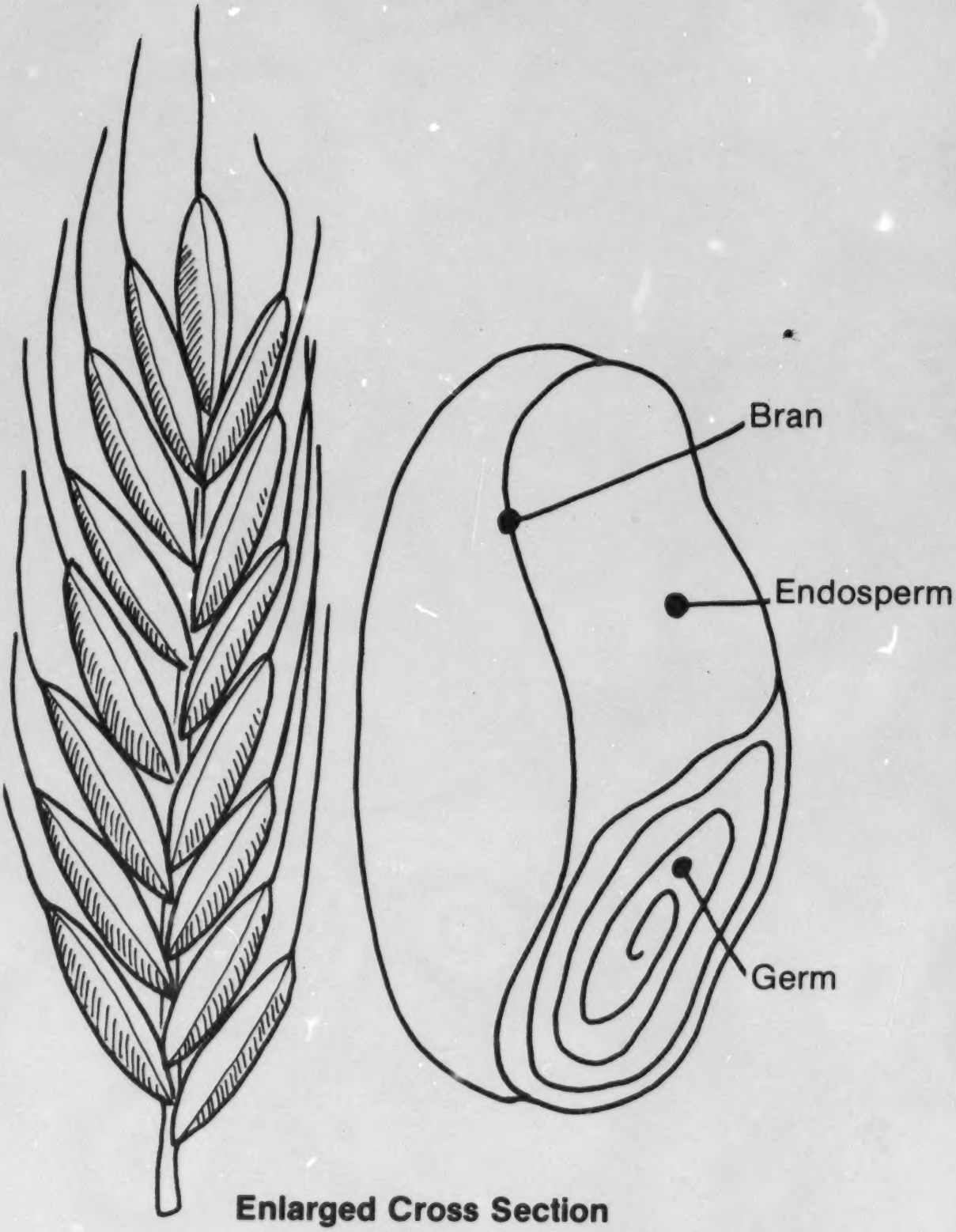
____6. Stores that advertise a food product as on sale but charge the regular price

The Milling of Wheat



The wheat kernel is ground and sifted many times to make flour.

Wheat Kernel Diagram



Enlarged Cross Section

F-117

Job-O Cards

J	O	B	O
Cook	Dairy farmer	Rancher	Fisher
Baker	Trucker	Picker	Free
Canner	Farmer	Packer	Butcher
Chef	Miller	Grocer	Free

243

J	O	B	O
Canner	Baker	Butcher	Rancher
Trucker	Free	Cook	Chef
Free	Grocer	Packer	Farmer
Miller	Picker	Fisher	Dairy farmer

244

F-118

J	O	B	O
Canner	Baker	Butcher	Rancher
Trucker	Free	Cook	Chef
Free	Grocer	Packer	Farmer
Miller	Picker	Fisher	Dairy farmer

J	O	B	O
Cook	Dairy farmer	Rancher	Fisher
Baker	Trucker	Picker	Free
Canner	Farmer	Packer	Butcher
Chef	Grocer	Miller	Free

F-119

24—79545

F-120

J	O	B	O
Farmer	Dairy farmer	Rancher	Baker
Chef	Trucker	Cook	Free
Picker	Canner	Packer	Butcher
Fisher	Miller	Grocer	Free

247

J	O	B	O
Miller	Baker	Butcher	Canner
Cook	Free	Trucker	Chef
Grocer	Rancher	Packer	Farmer
Free	Picker	Fisher	Dairy farmer

248

J	O	B	O
Dairy farmer	Grocer	Free	Cook
Rancher	Fisher	Chef	Baker
Miller	Picker	Canner	Butcher
Trucker	Packer	Farmer	Free

F-121

249

J	O	B	O
Fisher	Rancher	Miller	Dairy farmer
Packer	Trucker	Canner	Baker
Free	Picker	Butcher	Cook
Grocer	Free	Chef	Farmer

250

J	O	B	O
Butcher	Miller	Canner	Trucker
Cook	Free	Rancher	Packer
Fisher	Farmer	Grocer	Chef
Picker	Dairy farmer	Baker	Free

251

J	O	B	O
Miller	Canner	Butcher	Chef
Fisher	Free	Trucker	Grocer
Packer	Rancher	Picker	Free
Farmer	Cook	Baker	Dairy farmer

252

F-122

J	O	B	O
Butcher	Miller	Cook	Trucker
Packer	Free	Rancher	Chef
Fisher	Farmer	Grocer	Dairy farmer
Picker	Canner	Baker	Free

253

J	O	B	O
Packer	Canner	Grocer	Chef
Fisher	Free	Trucker	Miller
Baker	Rancher	Picker	Butcher
Farmer	Cook	Free	Dairy farmer

254

F-123

J	O	B	O
Farmer	Grocer	Canner	Trucker
Cook	Free	Rancher	Baker
Fisher	Butcher	Miller	Chef
Picker	Dairy farmer	Packer	Free

255

J	O	B	O
Grocer	Trucker	Butcher	Chef
Fisher	Canner	Farmer	Miller
Packer	Cook	Free	Picker
Canner	Free	Baker	Dairy farmer

256

F-124

J	O	B	O
Dairy farmer	Grocer	Chef	Cook
Rancher	Fisher	Miller	Packer
Free	Picker	Canner	Butcher
Trucker	Baker	Farmer	Free

257

J	O	B	O
Fisher	Rancher	Grocer	Canner
Picker	Trucker	Packer	Baker
Free	Butcher	Dairy farmer	Cook
Miller	Free	Chef	Farmer

258

F-125

J	O	B	O
Dairy farmer	Miller	Free	Butcher
Fisher	Farmer	Chef	Baker
Grocer	Picker	Canner	Rancher
Trucker	Packer	Cook	Free

F-126

259

J	O	B	O
Fisher	Rancher	Baker	Dairy farmer
Packer	Trucker	Canner	Free
Free	Picker	Miller	Cook
Butcher	Farmer	Chef	Grocer

260

J	O	B	O
Picker	Dairy farmer	Rancher	Baker
Chef	Trucker	Farmer	Free
Grocer	Canner	Packer	Cook
Fisher	Miller	Butcher	Free

J	O	B	O
Trucker	Baker	Butcher	Canner
Cook	Free	Farmer	Chef
Fisher	Rancher	Packer	Miller
Free	Picker	Grocer	Dairy farmer

25—70648

F-128

J	O	B	O
Farmer	Cook	Rancher	Baker
Dairy farmer	Trucker	Miller	Free
Picker	Butcher	Packer	Chef
Canner	Grocer	Fisher	Free

J	O	B	O
Miller	Baker	Packer	Canner
Fisher	Free	Trucker	Cook
Grocer	Rancher	Chef	Farmer
Cook	Picker	Free	Dairy farmer

J	O	B	O
Picker	Farmer	Trucker	Fisher
Packer	Butcher		Canner
Cook	Miller	Chef	Grocer
Dairy farmer		Baker	Picker

J	O	B	O
Chef	Fisher	Packer	
Dairy farmer	Grocer	Canner	Baker
Picker	Butcher	Trucker	Miller
	Farmer	Cook	Rancher

F-129

J	O	B	O
Trucker	Miller	Free	Dairy farmer
Picker	Fisher	Grocer	Baker
Chef	Rancher	Canner	Butcher
Cook	Packer	Farmer	Free

J	O	B	O
Canner	Rancher	Miller	Packer
Dairy farmer	Trucker	Fisher	Baker
Free	Grocer	Butcher	Cook
Picker	Free	Chef	Farmer

J	O	B	O
Free	Farmer	Trucker	Dairy farmer
Packer	Fisher	Free	Chef
Canner	Grocer	Cook	Miller
Picker	Rancher	Baker	Butcher

J	O	B	O
Baker	Fisher	Packer	Grocer
Dairy farmer	Free	Rancher	Canner
Picker	Chef	Butcher	Miller
Trucker	Farmer	Cook	Free

J	O	B	O
Cook	Miller	Canner	Rancher
Chef	Free	Dairy farmer	Packer
Picker	Trucker	Grocer	Chef
Fisher	Dairy farmer	Baker	Free

271

J	O	B	O
Grocer	Canner	Butcher	Chef
Picker	Free	Fisher	Miller
Canner	Packer	Picker	Free
Trucker	Cook	Baker	Dairy farmer

272

F-132

J	O	B	O
Free	Farmer	Trucker	Cook
Packer	Butcher	Free	Chef
Canner	Miller	Fisher	Grocer
Dairy farmer	Rancher	Baker	Picker

273

J	O	B	O
Baker	Fisher	Packer	Trucker
Dairy farmer	Miller	Rancher	Canner
Picker	Chef	Free	Grocer
Free	Farmer	Cook	Butcher

274

F-133

Job-O Skill Cards

Job-O
Skill Card

Cuts up large pieces of meat, poultry, and fish into smaller pieces to sell at the store or the meat market.

Butcher

Job-O
Skill Card

Assists the farmer in the field during harvest time. Collects the crops by hand or uses a machine to help harvest crops.

Picker

Job-O
Skill Card

Buys fresh fruits and vegetables from farmers and cans the food in cans and jars for stores to sell.

Canner

Job-O
Skill Card

Uses different grains milled into flour to make breads, crackers, and other baked foods.

Baker

Job-O
Skill Card

Works in fancy restaurants making special foods. This person is very skilled in making special foods not eaten at home every day.

Chef

Job-O
Skill Card

Works in cafeterias, coffee shops, restaurants, and school kitchens. Makes wholesome everyday food for people who need nutritious food for work and play.

Cook

Job-O
Skill Card

Grows crops of fruits, vegetables, and grains to feed people and animals.

Farmer

Job-O
Skill Card

Raises animals that give milk to make cheese, yogurt, and other milk products.

Dairy Farmer

Job-O
Skill Card

Raises sheep, cattle, hogs, and other animals to supply people with meat.

Rancher

Job-O
Skill Card

Goes out in a boat onto the oceans, lakes, and rivers to catch seafood for people to eat.

Fisher

Job-O
Skill Card

Buys foods that are fresh, canned, frozen, and boxed and sells them in a store.

Grocer

Job-O
Skill Card

Drives on highways and hauls refrigerated and iced trailers which keep the food cool, fresh, and unspoiled Delivers the food from the farm to the market.

Trucker

Job-O
Skill Card

Buys grain from farmers and processes it by hulling and grinding it for cooking or baking.

Miller

Job-O
Skill Card

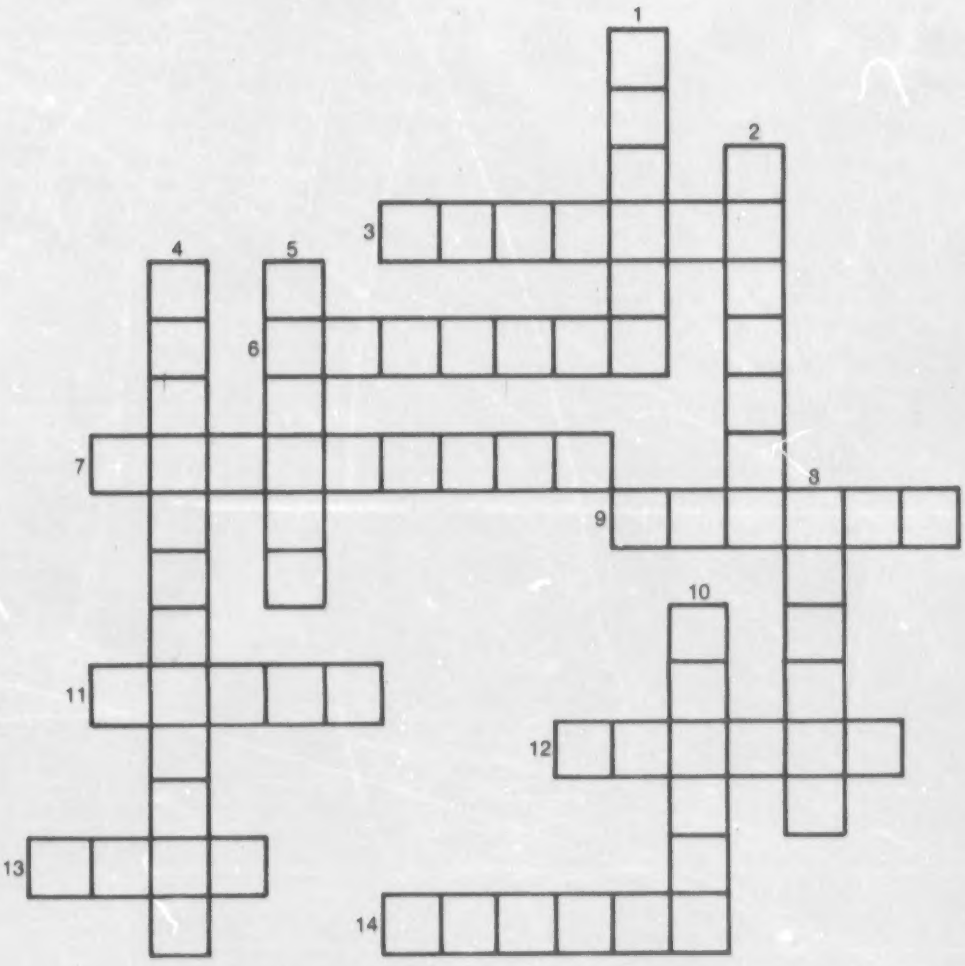
Provides boxes and packages in which food is packed for shipping or for sale in the stores.

Packer

Name _____

The Food Source

Word List
Baker
Butcher
Canner
Chef
Dairy farmer
Farmer
Fisher
Grocer
Miller
Packer
Picker
Processor
Rancher
Trucker



Down

1. Fish are caught by a _____.
2. Food is taken from the grower (producer) to market by a _____.
4. Cows are milked by a _____.
5. Food is sold in a store by a _____.
8. Wheat is made into flour by a _____.
10. Food is put into bags and boxes by a _____.

Across

3. Meat is cut up by a _____.
6. Cattle are raised by a _____.
7. Food is canned, frozen, and dehydrated by a food_____.
9. Crops of fruits, vegetables, and grains are grown by a _____.
11. Bread and rolls are made by a _____.
12. Fruits and vegetables, are taken from the plants by a _____.
13. Special food is cooked in a fancy restaurant by a _____.
14. Fruits and vegetables are put in jars and cans by a _____.

Name _____

Food-Related Careers

Fill in the blanks with the letter that matches each career with its job duties.

Career	Duties
___ 1.The farmer	a. Uses different grains milled into flour to make bread and other baked goods
___ 2. The rancher	b. Grows crops of fruit, vegetables, or grains
___ 3. The butcher	c. Cans, freezes, and dries food for stores
___ 4. The trucker	d. Cuts up meat
___ 5. The grocer	e. Raises cattle, sheep, chickens, or other animals
___ 6. The baker	f. Puts food into cartons, boxes, or other containers for shipping or for sale in the stores
___ 7. The processor	g. Gets milk from cows
___ 8. The miller	h. Delivers food from farms to market
___ 9. The dairy farmer	i. Buys foods that are fresh, canned, frozen, and boxed and sells them in a store
___10. The packer	j. Grinds wheat into flour
___11. The chef	k. Catches seafood
___12. The fisher	l. Works in coffee shops, restaurants, and school kitchens to make wholesome food
___13. The picker	m. Buys fresh fruits and vegetables and puts them in cans and jars to sell in the market
___14. The canner	n. Works in fancy restaurants making special foods not eaten at home every day
___15. The cook	o. Assists the farmer in the field by harvesting crops

Student Food Careers Pantomime Suggestions

(To Be Presented in Groups)

Grocery Store Workers

Choose someone to be a grocery store checker. This person runs the cash register. Pick someone else to be a packer. This person puts the groceries in bags. Other students can be customers. They fill their baskets with imaginary food. They unload them for the checker, who weighs the produce, punches the keys of the cash register, takes money from the customers, and makes change. The packer puts the food in shopping bags.

Cook

Choose someone to be a cook. Other class members can be customers. They enter the restaurant and pretend to order foods such as hamburgers, french fries, hot dogs, or sandwiches. The cook prepares the orders. He or she puts the food on plates and gives them to the customers, who pretend to sit down and eat. The cook can pretend to flip hamburgers, slice bread, spread butter, and dip french fries into hot oil.

Vegetable Farmer

Choose someone to be a farmer. This person plants seeds. Other students can be pickers. They bend over and pretend to pick the vegetables and put them into boxes. Select one person to put the boxes of vegetables on a truck.

Driver of a Food Truck

Choose someone to be a truck driver. Select another person to be the helper. Everyone else can be loaders. The truck driver and the helper can sit in chairs in the middle of the floor. The loaders pretend to load the truck. When they are finished, the driver pretends to drive away. The driver shifts gears, turns the steering wheel, and looks in the rearview mirror.

Waiter or Waitress

Select someone to be a waiter or waitress. Other class members can be customers. Have them sit in chairs in a circle as if they were around a table. The waiter or waitress gives the customers menus, and they give their orders one at a time. The waiter or waitress writes the orders on a pad and then gives these orders to a cook. When the food is ready, the waiter or waitress serves it to the customers.

Bus Boy or Girl

Select one of the students to be a bus boy or girl. This person clears the dishes, wipes the table clean, and sets the table with napkins and silverware.

Dairy Farmer

Choose someone to feed the cows. This person uses a pitchfork to put food in front of the cows. Have someone collect the full pails of milk, which are very heavy, from the milkers. This person will take the pails away and pour the milk into a big tank. The other class members can be milkers. They sit on chairs and pretend to milk the cows. They may want to give the cows a pat or two.

Other Publications Available from the Department of Education

Nutrition Education—Choose Well, Be Well: A Curriculum Guide for the Primary Grades is one of approximately 500 publications that are available from the California State Department of Education. Some of the more recent publications or those most widely used are the following:

California Private School Directory	$9.00
California Public School Directory	12.50
California's Demonstration Programs in Reading and Mathematics (1980)	2.00
Discussion Guide for the California School Improvement Program (1978)	1.50*†
District Master Plan for School Improvement (1979)	1.50*
Eating Habits of Students in California Public Schools, A Summary (1981)	2.50
Establishing School Site Councils: The California School Improvement Program (1977)	1.50*†
Guidelines and Procedures for Meeting the Specialized Health Care Needs of Students (1980)	2.50
Guidelines for School-Based Alcohol and Drug Abuse Programs (1981)	1.00
Handbook for Planning an Effective Mathematics Program (1982)	2.00
Handbook for Planning an Effective Reading Program (1979)	1.50
Handbook for Planning an Effective Writing Program (1982)	2.00
History—Social Science Framework for California Public Schools (1981)	2.25
Improving the Human Environment of Schools (1979)	2.50
Nutrition Education—Choose Well, Be Well: A Resource Manual for Preschool, Kindergarten, and Elementary Teachers (1982)	2.25
Nutrition Education—Choose Well, Be Well: A Resource Manual for Secondary Teachers (1982)	2.25
Nutrition Education—Choose Well, Be Well: A Curriculum Guide for Preschool and Kindergarten (1982)	3.75
Nutrition Education—Choose Well, Be Well: A Curriculum Guide for the Primary Grades (1982)	3.75
Nutrition Education—Choose Well, Be Well: A Curriculum Guide for the Upper Elementary Grades (1982)	3.75
Nutrition Education Today: Curriculum Design for Nutritional Knowledge and Food Use, Secondary and Adult Education (1981)	2.50
Planning a Publicity Campaign (Nutrition Education Training Program packet) (1981)	2.00
Putting It Together with Parents (1979)	.85†
Reading Framework for California Public Schools (1980)	1.75
The Relationship Between Nutrition and Student Achievement, Behavior, and Health (1980)	4.00
Science Education for the 1980s (1982)	2.00
Science Framework for California Public Schools (1978)	1.65
School Improvement: Making California Education Better (brochure) (1982)	NC*
School Nutrition and Food Service Techniques for Children with Exceptional Needs (1982)	1.00
Simplified Buying Guide (1981)	1.50
Student Achievement in California Schools	1.25
Students' Rights and Responsibilities Handbook (1980)	1.50†

Orders should be directed to:

California State Department of Education
P.O. Box 271
Sacramento, CA 95802

Remittance or purchase order must accompany order. Purchase orders without checks are accepted only from government agencies in California. Sales tax should be added to all orders from California puchasers.

A complete list of publications available from the Department may be obtained by writing to the address listed above.

†Also available in Spanish at the price indicated.
*Developed for implementation of School Improvement.

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